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By Robert Lawlor. The Yuga system of cycles supports astrophysicist Kozyrev's hypothesis about the spiralling geometry of time, but its concept of spin includes the sound emitted by that spin. These energetic processes interface with consciousness in the act of creation.

SCIENCE NEWS

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THE TWILIGHT ZONE

This issue we feature Steven and Evan Strong's report on Australia's Stonehenge, focusing on researcher Frederic Slater's efforts to decode its Original language before it was destroyed in 1940, and eyewitness testimony about a "flying city" seen by Nigerian villagers in 2012.

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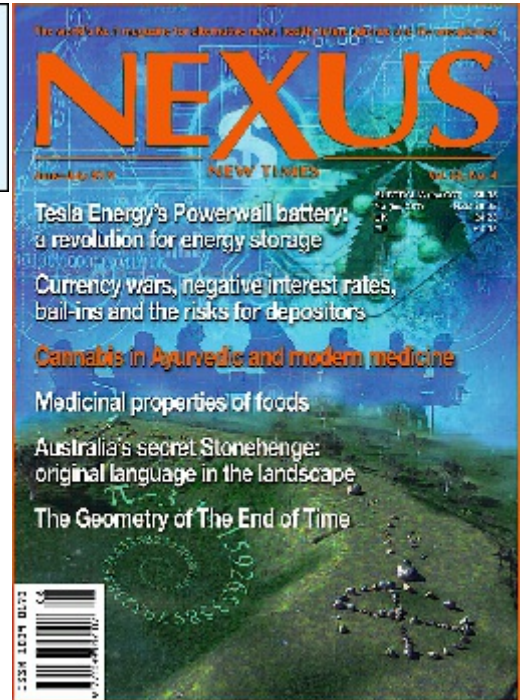
"The Paris Session" by The Touré–Raichel Collective
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CARTOONS

NEXUS

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Editorial

Welcome to yet another controversial issue of NEXUS Magazine. I know that I can use the word "controversial" in its proper context because there are always items in NEXUS that rattle our regular readers as well as those in the wider public. In case you are wondering, our reporting on items that contradict the mainstream dogma about climate change results in many disagreements from readers who somehow assume that, on this topic, mainstream experts are correct and trustworthy. Yet these same readers will happily agree that on the issue of vaccinations, the mainstream is wrong. Both examples have thousands of experts, lots of controversial data, lobby groups to push their agenda and total mainstream media support. They use ridicule to limit or scare off discussion and debate. Why are we not allowed to debate the issues of climate change data and vaccine safety without being labelled deniers?

Some of the thought-provoking content in this issue includes a mix of the esoteric and the mathematical. Fans of Nikola Tesla will be interested in the article titled "The Numerical Universe", which may help you understand Tesla's quote: "If you only knew the power of the 3, 6 and 9, you would have the keys to the universe."

Speaking of things Tesla, Elon Musk, the man behind the Tesla electric cars, has announced an energy-storage breakthrough that will revolutionise everything from domestic to industrial energy. Some are saying that this unit alone could mark the beginning of the end for the energy resources sector.

Another article in this issue which is sure to raise some eyebrows is the report on "Australia's Stonehenge" by Steven and Evan Strong. Unfortunately there is a lid of secrecy on the location and some other aspects of this amazing find, which was made public early last century. However, it is only a matter of time before the landowner, the experts and the Original inhabitants work out a strategy for allowing access to the site. Once again, we see evidence that Australia's ancient Aborigines were *not* primitive or ignorant, as the history books would have us believe.

There have been quite a few changes in my life over the last few years, not the least of which is that I created a non-profit company, AOTA Foundation Ltd, for the purposes of managing events such as conferences and exhibitions, organising investigative travel tours, and taking the dissemination of "alternative" news and information to a whole new level. The flagship project is the rapidly growing Alternative News Project. This is not just another news outlet: it is the world's first Internet-based, nonmainstream news service. See AlternativeNewsProject.org/NEXUS for more information.

Another project which both NEXUS and the AOTA Foundation are promoting is the upcoming Australian lecture tour with Erich von Daniken and David Hatcher Childress. I'll be introducing these speakers at each event, so I look forward to meeting many of you. See AncientAliensTour.com.

So, basically, the AOTA Foundation is a vehicle for projects and events that unite people of a similar frequency, and, importantly, its a vehicle to help promote the work of other like-minded groups, businesses and researchers. I

am also positioning AOTA to take NEXUS Magazine to a whole new level. If any of this excites you and you'd like to become involved, please contact me.

Also, I'd like to remind you to come to the NEXUS Conference 2015 in person. If you can't make it, then visit our website for details about livestreaming talks via the Internet. Till next time...

Duncan

Letters to the Editor ...

Antarctic Medevac Mission

Hi Duncan: I refer to the interview with Brian, the retired Flight Engineer featured in the Twilight Zone section of last issue (NEXUS vol. 22, no. 3).

It is highly likely that I may have shaken hands with Brian when he came to Davis. That was in 1985, my first winter in Antarctica.

The medevac was in October that year when one of our tradespeople (Steve Bunning) was severely burned in an industrial accident, not a boiler fire; he was burned all over his body and even his lungs inside. This happened in the early afternoon. To have any chance at all, Steve would have to be transported to Australia as quickly as possible.

At that time of year, both the Americans and the Russians were already flying in Antarctica and both were willing and ready to assist however they could, even with a relay of some sort. After an assessment of various factors, it was best and most efficient to ask the Americans. Our station leader (Paul Butler) spent nearly all night organising this. That was in the days before we had satellite communications, so all calls had to be made by HF radio or radphone, an HF radio-telephone system.

In the meantime, the whole station was involved in looking after Steve and doing whatever was necessary.

Very early the next day, a couple of other blokes and I were told to prepare a runway on the sea ice, in five hours—that was when the C-130 Hercules would be arriving to pick up Steve.

In those days we only had a CAT® D5 dozer, with proper snow tracks, and a CAT D6 construction dozer. We had no hope of cutting down to the ice and getting all the snow out of the way in time with only those machines. The best we could do was simply to level out the worst of the snowdrifts and hope for the best. We were still working a few minutes before ETA.

It was also interesting to see that the pilot didn't waste any time at all flying around looking at the runway; he just came in, put her down on the sea ice and that was it.

I'd asked one of our radio operators to tell the pilots to aim for the last two-thirds of the runway to avoid some really rough patches—he didn't. When the aircraft touched down, it was wobbling all over the place, to the point where it looked like the wingtips were going to hit the ground.

When I asked one of the crew later on how the landing felt to them, his reply was completely unfazed and in that typical American drawl: "Ah, we've had worse than that!" That particular person could well have been Brian.

They had their own fuel bladder inside the aircraft, and in no time they had a small pump ready and the hoses hooked up. But then the pump wouldn't start; it took a while before it did. I offered to take it to our workshop, but the aircraft crew persevered—and won.

In the meantime, the doctors stabilised Steve enough to get him to the aircraft. This was less than 24 hours after the accident.

Unfortunately, Steve died an hour and a half or two into the flight.

There is also a spiritual side to this, I believe. I talked this over with one of my fellow winterers and he agreed with me. I was sure that Steve knew he was going to die; he was also aware of all the preparations to get him flown back to Australia.

I believe that Steve decided not to die on station—for our, the winterers', sake—but to try to hang on until he got to Australia or at least until he was on the aircraft and well into the air.

Had he died before the aircraft made it to Davis, the medevac flight would have turned in mid-air back to McMurdo. This would have meant that Steve's body would have had to stay on station until the arrival of the first ship. I firmly believe that this is something that Steve did not want to happen. So there you have it.

It's good to have NEXUS, and on that note I reckon you ought to have your own regular, much longer column in

each issue—not just that editorial bit. You've got far too much to tell!

Cheers,

Peter S., Australia

Original Custodians' Rights

Dear Editor: The current violations of Australian Aboriginal sovereignty are mirrored in nations like Finland.

I personally have some Finnish relations, so the ill-treatment of the Saami people is close to my heart. I have spent time in Finland and have been acquainted with the pristine nature there.

Indigenous people such as the Saami, like Aboriginal Australians, are having their rights violated simply because they are more naturalistically aware than is the modern world and choose a more natural lifestyle that emphasises the preservation of ecology first and foremost.

There is little respect by the ruling majority for their way of life, which is assumed to be inferior to the modern technology-equipped man. Yet it is this same man who is making himself more and more unhappy and requiring more and more psychoactive drugs to mask his own anxious and depressive turmoil.

The assumption that the Indigenous way of life is inferior is utterly flawed. Their lifestyles are not comparable to our own on the basis of happiness, wellbeing and health, both of the human population and the surrounding environment.

The fact that Indigenous people were the original custodians both in Australia and Finland needs to be respected, otherwise we have effectively violated the rights of another nation-state in the same way that Adolf Hitler and the Nazis did, in the same way that Japan did to Australia in World War II.

The time has come to start to live by the standard we expect for our own property and possessions, otherwise we have no values and no morals. We could simply be defined as barbarous outlaws treating others completely differently to how we wish to be treated. Clearly, the messages of Christ and the teachings of many other religions of the world are completely forgotten when we do this.

Leon L., Australia

TB and Badger Culling

Dear Duncan: I wish to draw your attention to bovine tuberculosis (TB) and the badger cull in England. My research has pinpointed nuclear pollution following the 1986 Chernobyl disaster as behind the upsurge in "reactor cows".

TB is not an infectious disease; it is a manifestation of the immune system, a selfdefensive phenomenon, not a disease. My article titled "Badger Cull: TB not Infectious" can be found at <http://tinyurl.com/l3qcz6x>.

John Wantling, UK

Immunisation Objections

Dear Duncan: I am very concerned about the new "no jab, no pay/play" immunisation policies in Australia and have been in contact with Mike O'Neill, the director/owner of the Misty Mountain Health Retreat. Mike is starting a new political party called The Involuntary Medication Objectors Party. I am helping him to gain members to form his political party. Any support is appreciated.

This party also deals with the issue of mass medication via fluoridation of the public water supplies.

I am a registered nurse and have one vaccine-damaged child (eczema and food allergies; he is partially immunised) and another child who is unvaccinated, so these new laws will prevent me from being able to go back to work and from receiving government payments.

Carmen, Australia

Moon Landings Not Faked!

Mr Editor: I see NEXUS has recently published yet another article which implicitly suggests the Apollo Moon landings didn't happen [see 22/03].

Well, I was a staff member at ESA's [European Space Agency's] control centre from 1968 to 1993, during some of which time the Apollo missions took place.

I can assure you that the missions were tracked with pinpoint accuracy by monitoring antennae. Also, doppler shifting of the frequencies indicated the spacecraft moving away from the Earth and returning from the Moon. Finally, interferometry again located the spacecraft to where NASA claimed they were.

Such data was collected by Europe, Russia and Japan (not to mention by many wealthy amateurs), and it's unthinkable to suggest that these countries would have collaborated in a cover-up.

It's also unthinkable to suggest that by now I wouldn't have heard rumours from my many contacts that the landings were faked, but that is just my personal opinion.

The story that the Apollo Moon landings never happened is one myth that needs putting to bed, Mr Editor, because it just ain't true.

SCOD/OFSO, Spain

[The article actually suggests that we are unable to replicate the Apollo Moon landings and deliver humans safely there and back. My assessment is that we did land, but that we used advanced technology which was kept hidden via falsified broadcasts, photos, etc. Ed.]

Psychiatry-Pharma Fraud

Dear Duncan: I am an 18-year veteran of the UK mental health system. I have always been an unwilling patient, and all of my treatment has been given against my consent.

Four years ago, I decided to resist the system publicly and set up my website, endoferror.org.

EndOfTerror.org is "fighting for truth and justice and the end of tyranny and evil in mental health and psychiatry".

I expose some of the horrors I have witnessed in the system and aim to open up the platform so that other disgruntled service users—victims—can air their views. The global pharmaceutical company cartel that is the psychiatric industry faces very little organised resistance, and most of its victims are unvoiced and line the corridors of mental hospitals, suffering their torture in silence.

In speaking out, I have had attacks on me by the local police and mental health authorities intensify, which leads me to question freedom of speech within the UK.

I hope that the End of Terror website can inspire other mental patients to use the Internet to bring to life their own stories so that, en masse, resistance websites can change world policy on the barbaric industry that is psychiatry.

Mental illnesses are not pathologically defined diseases and are the product of a multibillion-dollar modern-day slavery fraud, run by charlatans and oppressive law enforcement and supported by international governments to the detriment of the wider population.

Throughout my years of incarceration in mental hospitals, I have been lucky enough to be able to read NEXUS Magazine regularly. Your stories on alternative health and different ways of thinking have been particularly helpful to me in my own haphazard journey through life.

Regards,

Wesley Gerrard, UK



USA TELLS GREECE TO REJECT RUSSIAN PIPELINE

What began as a series of diplomatic overtures between Greece's Tsipras government and Moscow quickly turned more serious once rumours began to swirl around Greece's potential participation in Russia's Turkish Stream pipeline which will allow Russia to bypass Bulgaria by piping gas through Turkey, then through Greece, Serbia and Hungary straight to the Austrian central hub.



It was soon leaked that Moscow was set to advance Greece US\$5 billion against the future potential profits from the pipeline. Discussions around the pipeline continued to move forward when Gazprom chief Alexei Miller visited Greece in late April to discuss "current energy issues of interest".

The European Commission promptly filed antitrust charges against the Russian gas giant in an absurdly transparent attempt to punish the Kremlin for interfering in negotiations between the EU and its Aegean debt serf, Greece.

Now the USA is stepping into the melee, as the *New York Times* reports:

"The United States, wading into the international efforts to shape Greece's economic and geopolitical orientation, is pushing the leftist government in Athens to resist Russia's energy overtures."

"A [US] State Department envoy in Athens urged Greece on Friday [8 May] to embrace a Western-backed project that would link Europe to natural gas supplies in Azerbaijan, rather than agree to a gas pipeline project pushed by Moscow."

(Source: ZeroHedge.com, 9 May 2014, <http://tinyurl.com/pwf8ac8>.)

SNOWDEN: AUSTRALIA MONITORS CITIZENS 'ALL THE TIME'

US National Security Agency whistleblower Edward Snowden has accused Australia of undertaking mass surveillance of its citizens and passing laws on the collection of metadata that do not protect society from acts of terrorism.

Snowden, addressing the Progress 2015 conference in Melbourne via satellite, criticised Australia's new metadata laws which allow the government and intelligence agencies to keep a constant watch on citizens.

"What this means is they are watching everybody all the time," he said. "They're collecting information and they're just putting it in buckets that they can then search through not only locally, not only in Australia, but they can then share this with foreign intelligence services."

Snowden repeated his position that acts of terrorism in the USA and elsewhere have not been thwarted by conducting mass surveillance on citizens. "The reason these attacks happened is not because we didn't have enough surveillance; it's because we had too much," he said.

He warned that journalists are also at risk of having their contacts exposed by the mass surveillance. "Under these mandatory metadata laws you can immediately see who journalists are contacting, from which you can derive who their sources are."

Meanwhile, Snowden seems determined to reveal more information from the National Security Agency files, hinting that there is yet more information about Australia's intelligence work that will be revealed at a later date.

(Source: RT.com, 9 May 2015, <http://tinyurl.com/qjcg8uv>.)

US HEALTH EXPERTS CONFIRM MEASLES TRANSMITTED BY THE VACCINATED

A remarkable study reveals that a vaccinated individual not only can become infected with measles but can spread it to others who are also vaccinated against it—doubly disproving that two doses of MMR vaccine are "99 per cent effective", as is widely claimed.

One of the fundamental errors in thinking about measles vaccine effectiveness is that receipt of the measles-mumps-rubella (MMR) vaccine equates to bona fide immunity against these pathogens.

Indeed, it is commonly claimed that receiving two doses of the MMR vaccine is "99 per cent effective in preventing measles", despite voluminous contradictory evidence from epidemiology and clinical experience.

This erroneous thinking has led the public, media and government alike to attribute the origin of measles outbreaks to the nonvaccinated, even though 18 per cent of the measles cases occurred in those who had been vaccinated against it—hardly the vaccine's "99 per cent effective" claim. The vaccine's obvious fallibility is also indicated by the fact that the CDC now requires two doses.

Last year, a groundbreaking study published in the journal *Clinical Infectious Diseases*, whose authorship includes scientists working for the Bureau of Immunization of the New York City Department of Health and Mental Hygiene and the National Center for Immunization and Respiratory Diseases of the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, looked at findings from the 2011 New York measles outbreak that individuals with prior evidence of measles vaccination and vaccine immunity were capable of both being infected with measles and infecting others with it (secondary transmission).

The focus was on one patient who had received two doses of measles-containing vaccine and was found to have *transmitted* measles to four of her contacts. Two of these contacts had received two doses of MMR vaccine and had prior, presumably protective, measles IgG antibody results.

This phenomenon—the MMR-vaccine-compliant infecting other MMR-vaccine-compliant cases—has been largely ignored by health agencies and the media.

The CDC and the Bureau of Immunization scientists identified a "need" for there to be "thorough epidemiologic and laboratory investigation of suspected measles cases regardless of vaccination status", i.e., investigators must rule

out vaccine failure and infection by fully infected individuals as contributing to measles outbreaks.

Instead, what's happening now is that the moment a measles outbreak occurs, a reflexive "blame the victim" attitude is assumed, and the media and/or health agencies report on the outbreak as if it has been proven that the afflicted are under- or non-vaccinated—often without sufficient evidence to support these claims. (Source: *GreenMedInfo.com*, 27 January 2015, <http://tinyurl.com/n2wc3ux>.)

CFR SAYS CHINA MUST BE DEFEATED AND TPP AGREEMENT IS ESSENTIAL

The US Council on Foreign Relations (CFR) has issued a report alleging that China must be defeated because it threatens to become a bigger power than the United States.

The CFR report, titled "Revising U.S. Grand Strategy Toward China", is tantamount to a declaration of war by America's aristocracy against China's aristocracy. It presents China as supremacist and urges the US government to increase the US debt even more. It says that in order to enable increased "defence" expenditures, these expenditures should be freed from spending-caps.

The report makes it clear that President Obama is not sufficiently hostile towards China: "All signs suggest that President Obama and his senior colleagues have a profoundly different and much more benign diagnosis of China's strategic objectives in Asia than do we."

The report also urges US Congress to deliver on the Trans-Pacific Partnership (TPP) as a "geoeconomic answer" to China's growing power. (Source: *WashingtonsBlog.com*, 5 May 2015, <http://tinyurl.com/kbp7m2n>.)

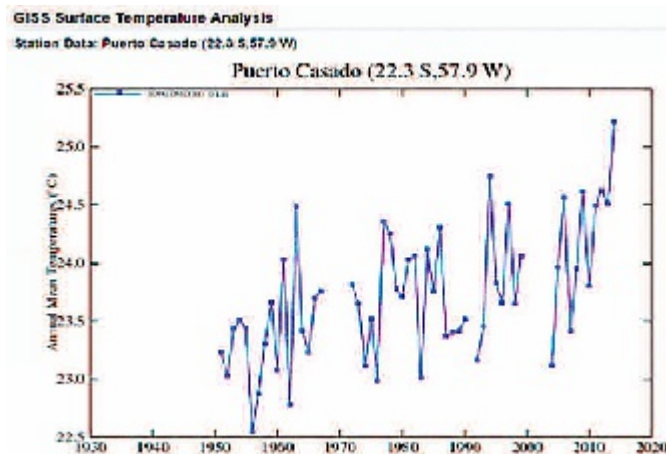
AUSTRALIAN PM'S ADVISER SAYS CLIMATE CHANGE IS A UNITED NATIONS HOAX

Climate change is a hoax led by the United Nations so that it can end democracy and impose an authoritarian New World Order, according to Maurice Newman, Australian Prime Minister Tony Abbott's chief business adviser.

Newman chairs the Prime Minister's Business Advisory Council and is a former chairperson of the Australian Stock Exchange and the Australian Broadcasting Corporation.

On 8 May 2015, he wrote in an opinion article for the *Australian*: "It's a well-kept secret, but 95 per cent of the climate models we are told prove the link between human CO2 emissions and catastrophic global warming have been found, after nearly two decades of temperature stasis, to be in error..."

"The real agenda is concentrated political authority," he said. "Global warming is the hook. This is not about facts or logic. It's about a new world order under the control of the UN. It is opposed to capitalism and freedom and has made environmental catastrophism a household topic to achieve its objective."



An adjusted graph from the Goddard Institute for Space Studies

In January 2012, Newman had an article published in the *Spectator*:

"I am not a conspiracy theorist, but we have witnessed the birth of an extraordinary, universal and self-reinforcing movement among the political and executive arms of government, their academic consultants, the mainstream

media and vested private sector interests (such as investment banks and the renewables industry), held together by the promise of unlimited government money. It may not be a conspiracy, but long-term, government-underwritten annuities have certainly created one gigantic and powerful oligopoly which must coerce taxpayers and penalise energy consumers to survive.

"But don't expect help from academia, mainstream media or the public service. They are members of the same establishment and worship together at the altar of global warming. By ruthlessly perpetuating the illusion that wind farms can somehow save the planet, they keep the money flowing. All the while the poor become poorer, ever more dependent on welfare and colder in winter."

(Source: BBC.com, 8 May 2015, <http://tinyurl.com/kjnl68>
Spectator.co.uk, 21 January 2012, <http://tinyurl.com/oujkrw8>.)

TOP SCIENTISTS START TO EXAMINE FIDDLED GLOBAL WARMING FIGURES

We are told that the world had "its hottest March since records began in 1880" and that this year already bids to outrank 2014 as "the hottest year ever". The figures from the US National Oceanic and Atmospheric Administration (NOAA) were based, like all the other three official surface-temperature records on which the world's scientists and politicians rely, on data compiled from a network of weather stations by NOAA's Global Historical Climatology Network (GHCN).

But these temperature records are not the only ones with official status. The other two, Remote Sensing Systems and the University of Alabama, Huntsville, are based on a quite different method of measuring temperature data—by satellites, which give a very different picture. Neither shows March as anything like the hottest on record, any more than they showed 2014 as "the hottest year ever".

Upon going through the official surface-temperature records, all of which ultimately rely on data compiled by the GHCN, analysts found hundreds of examples of how the original data recorded by 3,000-odd weather stations had been "adjusted". Figures from earlier decades had been adjusted downwards and more recent data adjusted upwards to show that the Earth has warmed much more dramatically than the original data justified.

So strong is the evidence that The Global Warming Policy Foundation has enlisted an international team of five distinguished scientists to carry out a full inquiry into just how far these manipulations of the data may have distorted our picture of what is really happening to global temperatures.

(Source: Telegraph.co.uk, 25 April 2015, <http://tinyurl.com/q4mp8vq>.)

The items on the following pages are contenders for Project Censored's top 25 news stories of 2014-15. - Editor

DRUG DECRIMINALISATION HAS POSITIVE RESULTS IN PORTUGAL

Drug addiction in Portugal has decreased by 50 per cent, 15 years after the country decriminalised substance use. To fight the drug problem, the country regularised the possession and consumption of substances like heroin, cocaine and marijuana.

The new policy included the offering of services to people with drug problems, adoption of solutions and interventions based on scientific knowledge, and the involvement of the community in drug policy implementation.

Studies have shown that the environment people live in may influence substance addiction, so this factor was the first enemy of the Portuguese government's war on drugs. Inspired by the results in Portugal, the World Health Organization advised countries in July 2014 to develop "policies and laws that decriminalize injection and other use of drugs and, thereby, reduce incarceration".

Portugal's successful policies have inspired countries in the European Union to see drugs as a health problem instead of a criminal one, according to Glenn Greenwald. (Sources: <http://tinyurl.com/of4r5dm>.)

THE FULL TOXIC BEAUTY TREATMENT?

Most people visit hair and nail salons for only a few hours a month at most. Beauticians, however, work in these often toxic environments all day, every day, breathing in fumes and absorbing chemicals through the skin.

Hair sprays, permanent waves, acrylic nail applications and other salon products contain ingredients that are associated with asthma, dermatitis, neurological symptoms and even cancer. Because these products are considered neither foods nor drugs, the US Food and Drug Administration has no responsibility to ensure that the products are made safer.

Amid little attention from corporate media dependent on lucrative cosmetics advertising, the Campaign for Safe Cosmetics seeks to correct this situation. One of its causes is the proposed Safe Cosmetics and Personal Care Products Act, introduced in Congress in 2013. This law would require all such products to be labelled with a full ingredient list and to be free of harmful substances. This act potentially affects every American who uses shampoo, moisturisers or deodorant.

(Source: <http://tinyurl.com/kjftfby>.)

ELECTRICITY FROM URINE TO LIGHT CAMPS IN DISASTER ZONES

Researchers from the University of the West of England, Bristol, and activists from Oxfam have collaborated to make a prototype toilet that generates electricity from urine using microbial fuel cells (MFCs). Designers hope to use the toilet in disaster zones where it is a challenge to illuminate inaccessible areas away from a power source.

The fuel cells can also be used to light cubicles in refugee camps and power mobile phones.

MFCs work by employing live microbes that feed on urine as their fuel. The MFC is, in effect, a system which taps a portion of that biochemical energy used for microbial growth and converts it directly into electricity. Researchers call it "urine-tricity" or "pee power". (Source: <http://tinyurl.com/nbqn2wp>.)

DRINKING-WATER FROM THE AIR

Austrian designer Kristof Retezar has invented a new device for your bike that collects the moisture contained in the atmosphere, condenses it and stores it as fresh drinking water. Powered by solar cells, it can harvest up to half a litre of water in an hour's time under the right climatic conditions.

This new device, called the Fontus, can be applied in two ways: first, as a nifty bicycle accessory, useful on long bike tours instead of having to search constantly for good water; and second, as a clever way of acquiring water in regions of the world where fresh water is scarce but air humidity is high. Retezar says his device cools hot, humid air to create and collect condensation.

(Source: <http://tinyurl.com/nuxglos>.)

CLIMATE GEOENGINEERING: SECRET SPRAYING OF OUR SKIES

For decades now, and largely in secret, the US military-industrial complex has been engaged in the systematic "spraying" of large swaths of our sky in one of the largest and least-discussed global planetary experiments in human history, reports Jeremy Schulman for Grist Magazine.

Observers witness a variety of spray patterns: parallel lines, crosshatch lines, X, O or U-turn lines, even circular shapes. These spray patterns possess two unusual behaviours: they stay visible for lengthy periods of time, and they slowly spread out across significant sections of our sky, often for hours at a stretch.

The "spraying" patterns reported by observers for more than 15 years have characteristics that contradict disinformation sources (official and unofficial). To wit, typical commercial flight patterns differ from these oft-witnessed heavy-spray-trail patterns in at least three distinct ways: commercial airlines don't go east-west and north-south in the same patch of sky; commercial airlines do not fly in patterns that make X, U or O shapes; and commercial airlines do not fly heavily one day and not at all the next.



What's in these sprays in our skies—and are they toxic? Global scientific data collection paints a picture of a multi-year systematic effort to engage in "climate geoengineering" through this spraying program, with troubling environmental consequences.

For example, post-spray rainwater tests done in Canada, the United States, Europe and New Zealand reveal the presence of aluminium, barium, strontium and other heavy metals in varying amounts that are unsafe, often radically so, according to various official criteria.

Meanwhile, numerous US patents from the mid-1970s to the present confirm the aerospace industry and the US military's high level of interest in aerosol spray technology, including electromagnetic technology, as well as an interest in specific metals, chemicals, oxides and their requisite particulate sizes. The problem with aerosol sprays is that what goes up comes down, either in months or in one to two years. When these sprays fall to earth, they are invisible and easily penetrate deep into human tissues as they are breathed in, drunk and eaten from food grown in heavy-metal-laced soils toxic to life.

Citizens in various communities worldwide have organised hearings and protests and submitted petitions to government officials, requesting clarification about what's being sprayed on them and also demanding that such spraying cease.

What is so surprising about this climate geoengineering story is the almost complete corporate-news blackout regarding it, particularly given the massive amount of visual evidence available on the Internet. Independent media coverage of this story is robust.

(Sources: <http://tinyurl.com/qy756s5>.)

AUSTRALIA'S NEW DATA RETENTION BILL

On 19 March 2015, the Australian Parliament's House of Representatives passed the recently amended Data Retention Bill. The law will force Australian Internet service providers to collect and store metadata from their customers and allow police warrantless access to the Internet browsing history of all Australians.

Prime Minister Tony Abbott praised the new bill and the politicians that worked to pass the bill in Parliament by saying: "The Australian Federal Police advised me that 90 per cent of counterterrorism investigations involve the use of metadata, as . . . do some 90 per cent of child abuse investigations. I want to thank the Chairman of the Parliamentary Joint Committee on Intelligence and Security . . . the Ministers and Shadow Minister involved but we can't stop there. We must always be acting to keep our country safe."

It appears that the Australian government will continue to pass new legislation that infringes on citizens' privacy for the sake of national security.

(Source: <http://tinyurl.com/padflvr>.)

YOUR SMART TELEVISIONS ARE LISTENING TO YOU

Samsung is alerting customers about data collection for third parties via certain Samsung products such as its smart

television, Shane Harris reported for The Daily Beast.

A single-line warning sentence in the middle of the Terms and Conditions that come with the sets states that, when the voice control feature is active, the TV sets "listen" to what is being said and transmit the information to an unnamed third party. Because most consumers neglect to read the product's terms and conditions, they are unaware of how the televisions collect and retain data. Samsung stated that consumers consent to the Terms and Conditions by using "the voice recognition feature".

Consumer advocates have related this incident to George Orwell's *Nineteen Eighty-Four*, in which televisions are used as spying devices.

In addition to The Daily Beast, the BBC has been one of the first major news outlets to bring the story to public attention. The news story of Samsung's "listening" television has received some coverage in corporate sources, including CNN, but remains underreported given the implications of the findings and the number of people affected.

(Sources: <http://tinyurl.com/ljq2g8z>.)

PESTICIDES IMPLICATED IN DECLINE OF BEES, WHILE CORPORATIONS SPEND MILLIONS ON PR RESPONSE

Since 2006, there have been significant losses of honeybees from colony collapse disorder (CCD). A new study from the Harvard School of Public Health shows that two widely used neonicotinoids, a class of insecticide, appear to harm honeybee colonies significantly .

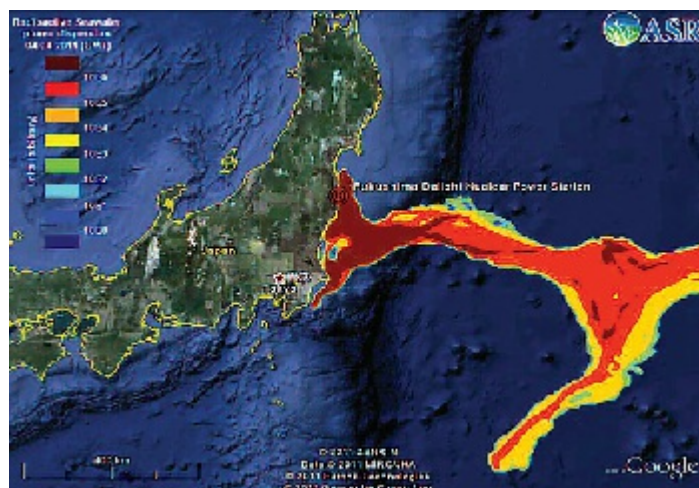
The EU banned the three most widely used neonicotinoids, based on strong science indicating that neonics can increase bees' vulnerability to pests, pathogens and other stressors and in some conditions can kill bees outright.

In response, three of the leading corporations that produce neonicotinoid pesticides—Bayer, Syngenta and Monsanto—have engaged in massive public relations campaigns costing more than US\$100 million. Their tactics include blaming anything but pesticides for the honeybee collapse, e.g., blaming farmers for misuse of the pesticides. (Sources: <http://tinyurl.com/os8fdg6>.)

FUKUSHIMA NUCLEAR DISASTER CONTINUES WITH POTENTIAL GLOBAL IMPLICATIONS

The 2011 nuclear reactor meltdown in Fukushima, Japan, continues unresolved despite the fact that governmental authorities and major news media have assured their constituencies that the situation has been contained.

The continued dumping of extremely radioactive cooling water into the Pacific Ocean from the destroyed nuclear plant is already being detected along the Japanese coastline and has the potential to impact entire portions of the Pacific Ocean and North America's western shoreline.



Aside from the potential release of plutonium into the Pacific Ocean, the Tokyo Electric Power Company recently admitted that the facility is releasing a whopping 150 billion becquerels of tritium and seven billion becquerels of caesium- and strontium-contaminated water into the ocean every day.

In contrast, the Japanese government does not allow various foods such as vegetables and fish containing uranium radiation over 100 becquerels per kilogram to be sold to its citizenry.

(Sources: <http://tinyurl.com/mpvowcs>)

HALF OF GLOBAL WEALTH OWNED BY THE TOP ONE PER CENT

In January 2015, Oxfam, a large charity organisation seeking to eliminate poverty, published a report stating that, by 2016, one per cent of the global population will own more wealth than the rest of the 99 per cent combined. This report drew attention to the World Economic Forum meeting held in Switzerland, where the wealthy elite and politicians addressed the issue of the widening wealth gap.

The report also claims that the proportion of global wealth owned by the one per cent will increase from 44 per cent in 2009 and 48 per cent in 2014 to 50 per cent in 2016.

Corporate coverage of this story has been minimal. Televised news stories were brief, presented at odd hours (either late at night or early in the morning), questioned the report and/or focused on tax reforms rather than the contents of the Oxfam report. None of the televised stories mentioned the details of the Oxfam report, and no one from Oxfam or the World Economic Forum was interviewed or quoted.

(Sources: <http://tinyurl.com/k5lbgdo>)

MAJORITY OF DRONE VICTIMS IN PAKISTAN NOT IDENTIFIABLE AS MILITANTS

Al Qaeda members comprise only four per cent of the total of 2,379 people killed by US drone strikes in Pakistan as of October 2014, just over 10 years after the first of such strikes. Of the total killed, about 30 per cent could be identified and 11 per cent were named as militants. Little is known about the remaining 1,675 unnamed victims.



The Bureau of Investigative Journalism reported these numbers after conducting a year-long investigation that pulled together information from various sources, including fieldwork, media outlets and leaked documents, to accumulate details of drone strike casualties.

These reports put into question the validity of statements by US Secretary of State John Kerry in which he claimed: "The only people we fire a drone at are confirmed terrorist targets at the highest level."

Regardless of whether or not those killed were in fact dangerous, the inability to account for their identities invites scepticism towards US military efforts domestically and internationally and raises moral concerns about basic respect for human dignity.

A variety of reports exist noting civilian deaths and strikes on "suspected" militants. However, as of 11 March 2015, very few major US news sources have reported figures concerning the numbers of unidentified victims and the small percentage of confirmed Al Qaeda deaths.

The Huffington Post republished The Bureau of Investigative Journalism's article in October 2014 but did not contribute any new information or writing.

(Sources: <http://tinyurl.com/kg7jstn>.)

US DRONE STRIKES OUTSIDE DECLARED WAR ZONES CONTINUE TO KILL

Since President Obama's inauguration, an estimated 2,464 people have been killed by drone strikes targeted outside of the United State's declared war zones. This figure was posted in February by Jack Serle and the team at The Bureau of Investigative Journalism, who have been aggregating drone strike data throughout this period of time.

American drone missions are flown mainly over Pakistan, where the CIA wishes to weaken Al Qaeda and limit its movement into neighbouring Afghanistan. The use of unmanned drones is seen as a way to minimise involvement and resentment in a country that is characterised by the *New Yorker* as "unstable" and that is known to possess over 100 nuclear weapons.

While the unofficial drone war for control over the Pakistan-Afghanistan border ended in mid-2013, the drone campaign continues with five strikes recorded in January 2015, the most since July of last year.

In January, several other strikes were reported to kill at least 45 in Somalia and three in Yemen, where a 12-year-old child was among the casualties.

Although corporate news has provided ongoing coverage on drones, individual incidents rarely make mainstream headlines.

Independent reporting at The Bureau of Investigative Journalism provides a database of all known strikes, which provides a clearer picture of the scale and impact of the US drone program.

(Source: <http://tinyurl.com/l978n73>.)

GATES FOUNDATION HELD ACCOUNTABLE FOR VACCINE FRAUD IN INDIA

The Bill & Melinda Gates Foundation is under investigation in a 2014 Supreme Court of India case for funding Merck's HPV vaccine trials of Gardasil® despite knowing the serious adverse reactions, injuries and deaths caused by treatment.

According to a report by Narayana Kumar, published in the *Economic Times* of India, several tests had been conducted in 2009 on 16,000 schoolgirls between the ages of nine and 15 in Andhra Pradesh.

Through the vaccine trials, 120 girls became seriously ill and seven died. Those who fell ill suffered from adverse reactions to the vaccination and experienced symptoms including seizures, severe stomach aches, headaches and mood swings.

Consent forms to oversee the HPV vaccination were illegally signed by wardens from the hostels where the girls resided or by illiterate parents via their thumbprint. Many girls and their parents did not understand the tests or the risks entailed until they were involved in the trial.

(Sources: <http://tinyurl.com/o77mzu2>.)

CENTERS FOR DISEASE CONTROL INFLATES FLU MORTALITY FIGURES TO PROMOTE VACCINES

The Centers for Disease Control and Prevention (CDC), the foremost research and informational component of the US Department of Health and Human Services, claims that 36,000 deaths per annum occur due to influenza, suggesting that foregoing a yearly flu vaccination is the cause.

Yet the American Society of Registered Nurses (ASRN) argues that the CDC's claims of tens of thousands of deaths is actually a public relations ploy.

Data retrieved from death certificates and the US National Vital Statistics System indicate that a maximum of 500 people die each year from the flu. Further, a study appearing in the *American Journal of Public Health* suggests that even this figure may be excessive.

According to ASRN, CDC decided to exaggerate flu deaths in the early 2000s when it realised that the public wasn't heeding its advice on annual flu vaccination.

(Sources: <http://tinyurl.com/l8ptzds>.)

US POLICE KILL AT RATES UP TO 100 TIMES GREATER THAN IN UK

Compared with other countries, the US is unquestionably different when it comes to the level of state violence, reports Richard Becker. Using 2011 figures, Becker concluded that, on a per capita basis, "the rate of killing by US police was about 100 times that of English cops in 2011". Similarly, US police were 40 times as likely to kill as German police officers, and 20 times as likely to kill as their Canadian counterparts.

In the UK, police do not carry guns on patrol. Official records indicate that British police used guns only three times while on duty in 2013, with zero reported fatalities.

(Source: <http://tinyurl.com/o2f9sam>.)

TOWARDS AN END TO INDUSTRIALISED FARMING

In 2013, the United Nations released a report indicating that the world's food needs could be met through organic, local farms. The UN report stated that food security, poverty, gender inequality and climate change can be addressed with a significant shift towards organic, localised farming. In contrast with industrialised farming, organic and local farms cut down on the energy and pollution that transporting food requires.



Another study revealed that organic farming utilised less water than industrialised farming and had a general reduction in pollution related to production. Data from the Rodale Institute's 30-year study on farming showed that organic farming yielded 33% more output than industrial farming. Currently, 80% of organic farming worldwide is being done outside of the US.

Unfortunately, global trade agreements prevent much change from occurring. They benefit large corporations such as Monsanto and further encourage corporate growth and greed.

(Source: <http://tinyurl.com/obbsxco>.)

Cannabis in Ayurvedic and Modern Medicine

Research continues to reveal what many cultures have known for millennia: that the hemp plant has a wide variety of health benefits and practical uses. The traditional Ayurvedic medical system prescribed a range of cannabis-based preparations to treat a multitude of ailments.

by Sameer Ali Sageer and Paul Benhaim

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A Brief Introduction to Ayurveda

Ayurveda is a complex medical system originating from the traditional Vedic Hindu culture and based on thousands of years of wisdom. Ayurveda focuses on treating human ailments in harmony with nature. Its Sanskrit-derived name meaning "science of life", Ayurveda is an alternative form of medicine. Natural products are gaining credibility globally over synthetic derivatives, bringing Ayurveda and other forms of alternative natural treatments to the forefront once again.

Over the ages, a spectrum of concoctions has been developed through the study of plants and through experiments. This knowledge was passed down through a lineage of sages until it was finally put into a text about 5,000 years ago. The Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya are some examples of the oldest and most famous Ayurvedic texts. These texts give much significance to the five elements of the cosmic system (earth, fire, air, water and space), the effect they have on the human system, and the importance of striking a balance between these elements so as to lead a healthy lifestyle. According to Ayurveda, every individual is affected by a particular element more than the others. Ayurveda broadly categorises people according to three constitutions or *doshas*:

- *vatha dosha*: dominated by air and space;
- *pitta dosha*: dominated by the fire element;
- *kapha dosha*: dominated by earth and water elements.

Cannabis in Indian Culture

Cannabis (also called *Indian hemp* and *marijuana*) has played an integral part in shaping many aspects of Indian society for its entheogenic and its religious or cultural aspects. According to the books of the Vedas (compiled between 2000 and 1400 BC), cannabis was considered to be one of the five sacred plants. It was believed that the guardian angels lived in its leaves, and it was referred to as a source of happiness and liberation as well as a means to relieve anxiety. In fact, according to Hinduism, Shiva—one of the primary forms of God—was the one who created *hashish*, a compressed preparation of cannabis resin.

Even today, a drink made out of cannabis, opium and various nuts and spices like almonds, pistachios, poppy seeds, pepper, ginger and sugar, popularly known as *bhang*, is famous in Hindu society. Although the drink was initially said to have been designed to take one closer to the divine power or cosmic oneness, *bhang* has also been reported to be used for recreational purposes. In southern India, there have been reports of *bhang* being rolled into small balls and eaten as well. It is said that *charas*, one of the strongest forms of hashish, originated in India.

During British rule in India, The Indian Hemp Drugs Commission report (1894) concluded that the use of the cannabis plant is very ancient, has great religious significance among the Hindus and is harmless in moderation. The report also has a section stating that more damage is done to the human system with the consumption of alcohol than with cannabis.

Hemp has also been used in India for its fibre. In fact, even though Indian law forbids the growing, processing and manufacture of any cannabis products, the use of hemp for its fibre is still known among various indigenous societies in the northern regions of India. In the current Indian scenario, people have started to recognise the potential of the plant.

Having said that, due to the strict rules in India and the lack of scientific knowledge of and research into this plant, the emergence of the concept of medical marijuana will take time.

Educating the public about the use of hemp-based food products for their therapeutic characteristics will slowly pave the way for the reintroduction of cannabis to Indian culture. This initiative is being led in a joint venture

between Hemp Foods Australia and Hemp Foods India.

Cannabis Research

Although the use of hemp fibre dates back to 4000 BC in China and Turkestan, it is not certain if the herb was used for its psychoactive purposes back then.

The earliest use of cannabis for its psychoactive properties, as noted in the Chinese Pharmacopoeia, is estimated to be c. 2000 BC.¹ A combination of hemp resin and wine was used as an anaesthetic and as a treatment for ailments like absent-mindedness, malaria and constipation.

Cannabis extract was among the top three most prescribed medicines in the USA until the drug was prohibited in 1937 and its use became restricted. Indeed, cannabis was removed from the United States Pharmacopeia in 1942 because of alleged concerns about its potential to cause harm.

However, advances in the area of psychedelic and entheogenic research have enlightened us much more about the medicinal attributes that this plant possesses.

Multiple clinical trials across the globe have revealed a plethora of medicinal properties. Cannabis is a potent natural analgesic. It also has neuroprotective effects and helps with nausea, spasticity, glaucoma and movement disorders. Medicinal marijuana is a powerful appetite stimulant, specifically for patients suffering from HIV and the AIDS wasting syndrome as well as dementia.

Recent studies have even proven that cannabis (mainly cannabidiol or CBD) has tumour-reducing properties. Unlike chemotherapy—which only destroys the multiplying cells in the body, thereby restricting the growth of the tumour—cannabis has the ability to seek out the affected cells and destroy them through apoptosis, reducing the size of the tumour. In other words, it actually possesses cancer-reversing properties.

The biggest and most successful modern use for high-CBD/low-THC (tetrahydrocannabinol) hemp oil is in treating intractable paediatric epilepsy.

One of the most important breakthroughs when it comes to marijuana research is the discovery of the human endocannabinoid system. Our body has CB1 and CB2 cannabinoid receptors located in the brain, the muscles, the liver, the fat cells and the gastrointestinal (GI) tract. The widespread distribution of these receptors is why marijuana has so many medical applications.

By using HPLC (high-performance liquid chromatography)*, we have been able to identify the various candidate constituent molecules and then decipher their specific therapeutic properties. Our previous knowledge was focused on THC. Now that more research has expanded to include CBD, both are now seen in terms of "whole plant medicine". Research is also looking into all the constituent cannabinoids like CBC, THCV, CBG, CBN, CBDV, THCA and many more. These cannabinoids seem to work with an "entourage" effect, combining to deliver a complete therapeutic benefit. (*Do not use gas chromatography instead of HPLC, as the heat applied during the analysis alters the molecular composition of the molecule. Exposure to heat turns THC-A, a non-psychoactive molecule with multiple therapeutic properties, into THC, a psychoactive molecule.)

With the medical potential of cannabis starting to be realised, we are now observing different parts of the world lifting the ban on medicinal marijuana. This in turn sends out a wave of enquiry on a more global scale: "Can it really be used as a medicine?" Research has begun in earnest.

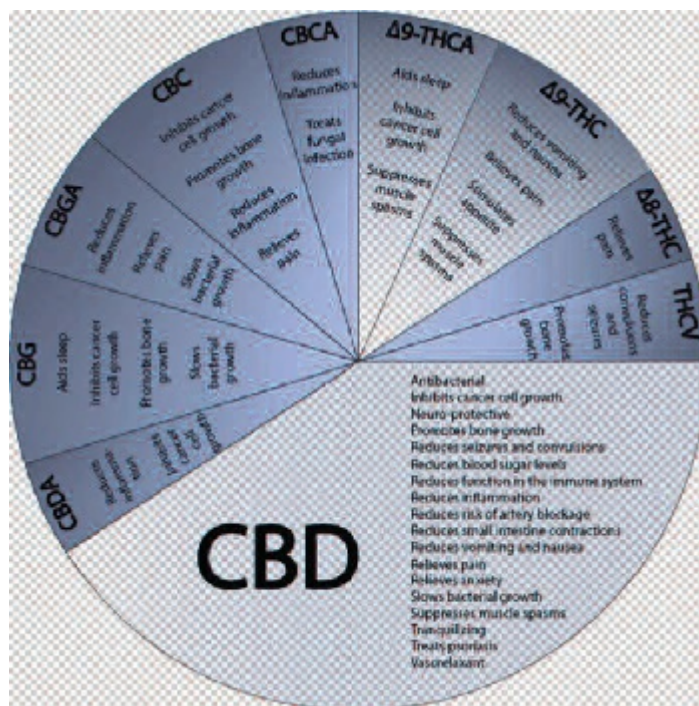
Cannabis in Ayurvedic Medicine

Cannabis was used as part of quite a few concoctions back in the days of the Atharvaveda, the precursor to Ayurveda. Cannabis by itself was never given for any therapeutic purposes. In fact, according to most Ayurvedic texts, cannabis was regarded as a toxic substance and hence was only given as a concoction with a variety of other herbs.

Having said that, the traditional Ayurvedic purposes of *ganja* (or cannabis) revolve around two major categories of medical ailment: GI disorders and anxiety. However, new research includes two more categories: neurotransmitter function and pain. Though many authors speculate that, historically, marijuana may have been used as a painkiller because of its intoxicating qualities, there is little evidence in the Ayurvedic texts for this use of the herb.

Ayurveda places emphasis on plant dosage. Although 1.5 grams per day is said to be helpful in treating GI disorders and relieving anxiety, adverse toxic reactions are said to occur when the dosages are increased to 4-8 grams per day. In several contexts, cannabis has been referred to as *visha*, which means "poison" in Sanskrit.

This does not change the fact that many parts of the plant have exhibited a variety of therapeutic benefits. The juice of the leaves can be applied to the head as a wash and has been proven to remove dandruff and lice. There have been instances where eardrops made from the juice allay pain and kill worms and insects.



Components and properties of cannabinoids (Source: Sameer Ali Sageer)

Many of the ancient documents have shown cannabis to be useful in cases of diarrhoea, as a diuretic, as a treatment for gonorrhoea and in restraining seminal secretions. The bark has a similar effect. The powder is recommended as an external application for fresh wounds and sores for speeding up the healing process and promoting the growth of granulation tissue. A poultice of the boiled root and leaves is useful in reducing inflammation, curing erysipelas (an acute infection with a skin rash) and allaying neuralgic pain.

Records show that cannabis concoctions have been used specifically to treat sprue syndrome (a malabsorption disorder), irritable bowel syndrome, Crohn's disease, chronic malabsorption, loss of appetite, diarrhoea, nasal catarrh and fever, and as a general tonic.

Most of these herbal mixtures are formulated in the form of either a powder or a paste. The majority of them are prepared using a decoction method, where the constituent herbs are immersed and stirred constantly in about 1,000 litres of boiling water. The liquid mixture is allowed to boil under pressure until the total volume is reduced to about 250 litres of a thick, organic paste. Powdered products are usually mixed with honey or ghee (clarified butter) to help with easier ingestion. The mixture has around 7% alcohol added to it initially, to help with the proper mixing of the different constituents. Depending on the purpose and method of ingestion or application, these concoctions are usually heated and mixed with fat or medicated oil (olive oil has been used in many of the concoctions).

Most cannabis-related Ayurvedic texts emphasise using the male plant instead of the female plant. This is because the female plant produces more resin and as a result exhibits more psychoactive or toxic properties.

Considering the ecological factors (and confirmed with a couple of Ayurvedic doctors whom we met during our research), chances are that most of these Ayurvedic concoctions use *Cannabis indica* in their formulation. Since the method of extraction and product formulation is pretty basic, we believe that by replacing *Cannabis indica* with *Cannabis sativa* we can produce the same sort of concoctions without the toxic properties of *Cannabis indica*.

Presented below are some of the cannabis-based concoctions listed in the Atharvaveda pharmacopoeia. In most cases, the constituents are listed with the common name followed by the botanical name. These concoctions (and many other opium-based formulations) are no longer being used because of their psychoactive properties. Replacing the *Cannabis indica* with a variety that has a lower THC concentration would yield a more favourable product.

● **Concoction 1**

Popularly known in the Ayurvedic context as Modakadi Churna, this is a powder that has been known to help with digestion, ease indigestion and assist with acidity, sprue and flatulence.

1. Ajwain - *Trachyspermum ammi*

2. Aconite - *Aconitum heterophyllum*
3. Nutmeg (mace and seed) - *Myristica fragrans*
4. Clove - *Eugenia caryophyllata*
5. Hemp - *Cannabis sativa*
6. Cumin - *Cuminum cyminum*
7. Henbane - *Hyoscyamus niger*
8. Opium poppy - *Papaver somniferum*
9. Gray nicker - *Caesalpinia bonduc*
10. Wheat - *Triticum* spp.
11. Blue mussel extract - *Mytilus edulis*

All the components are mixed in equal parts and are roasted and crushed into a powder form. The mixture is usually combined with honey for easier ingestion.

● **Concoction 2**

This concoction mentioned in the Atharvaveda has been found to possess aphrodisiacal properties. However, in the wrong proportions, the concoction has been known to cause adverse toxic reactions.

1. Cannabis - *Cannabis sativa*
2. Ginger (dry) - *Zingiber officinale*
3. Cardamom - *Elettaria cardamomum*
4. Cinnamon - *Cinnamomum zeylanicum*
5. Indian bay leaf - *Cinnamomum tamala*

The above-mentioned herbs are dried, crushed and mixed in equal proportions to make an homogenous mixture. It is generally combined with jaggery (an unrefined, concentrated product of date, cane juice or palm sap) and ghee to enhance the taste and for easier ingestion.

● **Concoction 3**

Popularly known in the Atharvaveda scriptures as Madanamodakam, this is a powder or paste that has displayed usefulness in areas of digestion and sexual performance. The constituents included.

1. Cannabis - *Cannabis sativa*
2. Ginger (dry) - *Zingiber officinale*
3. Black pepper - *Piper nigrum*
4. Long pepper - *Piper longum*
5. Emblic - *Emblica officinalis*
6. Terminalia - *Terminalia chebula*
7. Beleric - *Terminalia bellirica*
8. Pistachio - *Pistacia integerrima*
9. Snow lotus - *Saussurea lappa*
10. Coriander - *Coriandrum sativum*
11. Rock salt
12. Sand ginger - *Kaempferia galanga*
13. Talispatra (Himalayan fir) - *Abies webbiana*
14. Beechwood - *Gmelina arborea*
15. Indian rose chestnut - *Mesua ferrea*
16. Ajwain - *Trachyspermum ammi*
17. Henbane - *Hyoscyamus niger*
18. Liquorice - *Glycyrrhiza glabra*
19. Fenugreek - *Trigonella foenum-graecum*
20. Cumin - *Cuminum cyminum*
21. Nutmeg flower - *Nigella sativa*
22. Sugar
23. Ghee
24. Honey

The cannabis seeds are roasted and then crushed and mixed with ghee (A). An homogenous powder of components 2 to 20 is then made (B). Next, equal amounts of A and B are combined with twice the amount of sugar. The resultant concoction can be mixed with honey and/or ghee to make it easier to ingest.

● **Concoction 4**

Unlike the ones mentioned above, this particular concoction was recently used in Kerala, southwestern India, for helping cancer patients. It is said to have properties that prevent cancer cells from forming and proliferating. The concoction requires the use of pure, unprocessed honey and aloe vera. The source of this information says that in

order to prepare this formula, the thorns of three leaves of aloe vera are removed (without peeling off the skin). The remaining parts of the leaves are then cut into small pieces and mixed with one cannabis flower cut into fine pieces and the unprocessed honey. Four tablespoonfuls of alcohol (brandy in this scenario) is added to this mixture, which is then refrigerated. It is usually prescribed that a person consume this mixture three times a day, 20 minutes after food.

• **Concoction 5**

Masala chai spiced tea has been known to be helpful with digestion. The black tea mix usually includes ginger, clove, mint, cinnamon and cardamom. It is even said that with the right ingredients it helps with the regulation of cholesterol build-up in the body. Adding hulled hemp seeds to the mixture assists with this and provides essential nutrients. It also gives a refreshing, nutty flavour. ^

Further Information:

- To learn more about cannabis, including cannabidiol or CBD, as a legal dietary supplement (check on legality in your country) visit the website <http://www.elixinol.com>.
- To learn more about hulled hemp seeds and non-psychoactive hemp foods (again, check on legality in your country), visit the websites <http://www.hempfoods.com.au> and <http://www.hempfoods.in>.

About the Authors:

- **Sameer Ali Sageer** is a biotechnology major and an enthusiast of Ayurveda and hemp. He is also a student of the medicinal uses of psychedelic medicines. He met Paul Benhaim, who was on a business trip to India, and shared his love for Ayurveda and hemp. Together they have been investigating how ancient knowledge of healing herbs from the Ayurvedic perspective may be blended with modern understanding of industrial hemp.
- **Paul Benhaim** has been working in the field of industrial hemp since 1993. His first food product is the most successful hemp-food snack bar in Europe. He is creator of the first hemp plastic product since Henry Ford, has started a hemp skincare company and has consulted for government authorities in Europe, North America and Australia. He is currently the Chief Executive Officer of Hemp Foods Australia Pty Ltd (<http://www.hempfoods.com.au>), Elixinol (<http://www.elixinol.com>), which manufactures and sells bulk and branded high-CBD products, and Sativa skincare, which produces a range of hemp oil/CBD skincare products (<http://www.sativaskincare.com>).

Endnote

1. Schultes, R.E. and A. Hofmann, *Plants of the Gods: Their Sacred, Healing, and Hallucinogenic Powers*, Healing Arts Press, Rochester, VT, USA, 1992

When 'Alternative' Medicine Was Mainstream

Part 2 of 2

In harmony with an ancient science rediscovered during the Renaissance and practised until the mid-tjth century, food was regarded as medicine and was prescribed by physicians according to its humoral properties and patients'specific health conditions.

by Paul Lloyd, PhD

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*The sick may offend in a slender diet, for thereby it happeneth that they grow worse, for every error in this case is more dangerous, then in a somewhat fuller diet. For the same cause, a very slender and too precise a diet, is somewhat dangerous to sound and healthful bodies, because they endure the errors thereof with more difficulty.*²²

A Culinary Balancing Act

Asparing diet consisting of carefully selected foods, cooked in specific ways, was the medicine usually prescribed to patients suffering from acute or chronic conditions during the Renaissance and early modern period. However, as the 2,400-year-old advice written by Hippocrates and quoted above demonstrates, people whose maladies were less serious could usefully be given a "fuller diet". Given that each food had its own humoral characteristics and, when ingested, transferred its properties to the consumer, this meant that a culinary balancing act was needed in order to supply the patient with quantitatively adequate meals containing overall the right humoral characteristics.

In part one [see previous issue 22/03], I described the nature of the humoral schema and requirements of the humoral body. I showed how a doctor might recognise deficiencies, superfluities and corruptions of humours that either resulted in illnesses or could engender both physical and mental health problems. Here in part two, I focus on the medicinal properties of a selection of foodstuffs which, prior to the adoption of chemicals, minerals and distillates in the late 17th century, were medicines. I show how humourism—passed down to Renaissance doctors by Hippocrates and Galen, whose wisdom was acquired from learned sages living in even earlier times—can be recovered and examined for its true value.

In their guidebooks on maintaining good health and overcoming illnesses, doctors and apothecaries four centuries ago typically divided food into six broad genres. In so doing, they discussed the medical benefits and dangers of each foodstuff in turn. These genres were: meat (referred to as "flesh", for the word "meat" meant food in general); fish; dairy produce (known as "white meat"); herbs and fresh fruits (the former included vegetables); spices (which included dried fruit and sugar); and beverages.

As each of these types of food would require an entire article to do it justice, I decided that it might be beneficial to vegetarians and nonvegetarians alike to present an overview of the positive attributes and dangers of a modest selection of popular herbs, spices and condiments.

It was generally understood in the 1500s that one did not have to sacrifice personal taste, adherence to the latest culinary fashions or displays of opulence on special occasions to rectify the sort of humoral balance that would prevent the onset of disease. For this reason, the writers of pre-1650 cookbooks advised on the appropriate ingredients for making specific meals, but never on the quantities to be used.²³ This decision was left to the household chef who was in the best position to make that determination at the behest of family members. Thus, the accompanying ingredients in a recipe for baking a dish of veal or liver, for example, which are viscous and humorally moist meats, typically included unspecified quantities of a range of items from across the humoral spectrum, such as cabbage, coriander, onions, lemons, sugar, raisins, pepper and cloves. I discuss the special characteristics of these and other medicinal foodstuffs later, but below I list some foods that fall into each broad humoral category:

<p>Hot and Dry</p> <ul style="list-style-type: none"> - artichokes (globe) - burnet - capers (especially those preserved in brine) - fennel - mint - nuts (bitter almonds, chestnuts, pistachies, dried walnuts) - olives (especially the salty varieties) - onions (including garlic and leeks) - parsley - radishes - rice - sage - salt - spices (cinnamon, cloves, dried ginger, mace, nutmeg, pepper, saffron) <p>Hot and Moist</p> <ul style="list-style-type: none"> - almonds (sweet) - apples (only the sweet varieties) - asparagus - carrots - dates - figs - ginger (fresh, green) - grapes - hops - mulberries (ripe) - pomegranates (only the sweet varieties) - sugar - walnuts (unripe green)
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Medicinal Properties of Various Foods

While these foodstuffs can be used as humoral correctives to restore good health and protect against illnesses, it should be noted that they also have specific medicinal attributes. A few medical conditions and some of the foodstuffs that may be used to treat them are listed on the next page.

The information that I provide here, which is sourced from *Dyets Dry Dinner* by Henry Butts²⁴, is far from comprehensive. Butts's dietary, along with many other regimen guides, explained in great detail the many positive and negative attributes of these and a host of other foods. Capers, for example, aid digestion in people with phlegmatic constitutions, and they can also help to cure haemorrhoids and expel worms from the body. The downside is that they can inflame the intestines and cause thirst.²⁵

Although the consumption of every food item needs to be carefully considered because of its negative attributes—particularly by those people whose constitutions are out of balance—the following list does serve as a useful guide to humoral medicine in general.

Cold and Dry	
-	apples (sour varieties)
-	beans (green)
-	chicory
-	lemons
-	medlars
-	mulberries (unripe)
-	pears
-	quinces
-	strawberries
-	vinegar
Cold and Moist	
-	borage
-	cherries
-	colewort
-	cucumbers
-	endives
-	gourds
-	lettuce
-	melons
-	oranges (sour varieties, as sweet ones are temperate)
-	peaches
-	peas
-	plums
-	pomegranates (sour varieties)
-	spinach

While some of these foodstuffs may be eaten as part of a controlled diet to cure or lessen the impact of specific illnesses, others are best prepared in special ways—such as making "waters" with them. Dr Thomas Moffett wrote that eating the young leaves of globe artichokes after they have been boiled in buttered broth "stirs up lust of the body both in men and women"²⁶, and the Welsh doctor and poet William Vaughan noted that fennel water is good for washing the eyes to prevent them from becoming bloodshot and is also good for sharpening the memory.²⁷ Yet despite fennel's positive traits, too much fennel, like other humorally hot and dry foods, can inflame the blood. If one is ill, overcompensation is dangerous. Getting the right balance is key to success. This is why the heat and moisture axes are commonly divided into nine stations and sometimes even more (see table 1 in part one).

When humoral medicine was mainstream and the home was the primary arena for dispensing healthcare, two types of easily made medicines that our foremothers almost always kept at the ready were made of roses (rosewater and syrup) and lemons.

Chastity	Medicine	Kidney stones	lemons
Flu-like infection	borage	Eye inflammation of	peaches
Blood infection	borage		raspberries
	figs	Leucopitits	strawberries
Stomach, bad	dates	Long trouble	tree
	peaches	Melancholy	orange
Baldness	pears	Mental laziness, slow	plum
Chills, cough	apricots		chickens
	dates		hazelnuts
	hazelnuts		figs
	peas	Milk, lack of	cherries
	pomegranate		fennel
	figs		lettuce
	leeks		spinach
	sugar	Woes, cutting	spinach
Cure	pepper		lett
Constipation	dates	Pale face	chickens
	pears		chickens
	plums	Pale face, resistance	chickens
Esight, poor	almonds		figs
	nutmeg		garlic
Fever, high temperature	cucumbers	Skin blemishes	lett
	oranges		lemons
	spinach		turnip
	strawberries	Soreness, sensitivity	chickens
Flu-like	artichokes		dates
	ginger		nutmeg
	pepper		peas
Haziness, thick	pears		peas
	leeks	Heart, weakness	peas
	apricots		garlic
Heartache	quinces		mulberries
	cherries	Too, decay	radishes
Indigestion	lemons	Urine, difficulty producing	walnuts
Infection, bacterial	almonds		turnip
Infection	onions		fennel
	lett		peaches
Infectious symptoms	spinach		raspberries
Intestine	green herbs		strawberries
	lettuce		peaches
Intestines, inflamed	figs	Warm	raspberries
Intestine, weak	chickens		garlic
Urinary, white	mulberries		walnuts

Rose Medicines

Roses, physician Tobias Venner knew, "please a weak stomacke, comfort the heart, temper and purifie the blood, expel sadness, and are enemies to melancholy". This is because they consist of "earthie, waterie, and aerie parts". All roses, he noted, "have a predominant cold temperature in the first degree: being dried and their moisture gone, they doe binde and drie, and likewise coole". The sweet and pleasant "smell of Roses is very comfortable to all the senses, spirits, and principall parts of the bodie, and so is the distilled water of them, which doth also gently temper and coole the inward parts". Syrup of roses, the physician pointed out, "is a most singular and gentle loosening medicine; for it projecteth not onely those excrements which sticke to the bowels, but also carrieth downewards out of the stomacke raw, phlegmatick and cholericke humors, and also alayeth the extremitie of heat in agues and burning fevers". In summing up the medicinal value of roses, Venner said that they comfort the brain, cleanse the organs and are "most profitable for them that have weake and crude stomacks, or are affected with superfluous moysture in the lungs, and subject to consumptions".²⁸ This is quite a claim, but the evidence of surviving household notebooks suggests that consuming humorally cool, dry herbs like the rose *works*.

How? Excess moisture that results in the production of phlegm is driven out of the body, and coolness "in the first degree" extinguishes some of the heat that can corrupt the body's yellow bile. But what about the apparent contradiction that cool, dry roses can be "enemies to melancholy"? After all, it is seeing apparent contradictions and not seeing black and yellow bile that discredits humourism in the eyes of sceptics. The keyword here, though, is "apparent". Rosewater in Venner's day typically was made with red wine; and rose syrup was, and still is—much to the dismay of the SSP (salt and sugar police)—made with copious quantities of sugar. Both red wine and sugar are humorally warm and moist. Thus, by getting the relative quantities right, rose medicines can inhibit the overproduction of black bile which can result in melancholy.

Lemon Medicines

But the fruit of the lemon is also cold and dry, so why have medicines made of both roses *and* lemons? Lemon medicines can be made from the fruit's seeds, flesh and rind, and each has characteristics that differ both from each other and from medicines made with rose buds, petals and leaves.

In *Praxis Medicine*, an extensive encyclopaedic guide published for the benefit of doctors and apothecaries, physician Gualtherus Bruele showed that syrup made from lemons and oranges form part of a cure for bubonic plague.²⁹ This works by expelling toxin-attracting corrupt humours from the heart. Many of Bruele's medicines containing lemon were too complex to be made in the home by nonspecialists. Based squarely on humoral theory, these include cures for a "panting" heart, a bleeding nose, nightmares, syncope and jaundice.³⁰ Home-made lemon-based medicines, however, could be used to prevent or treat many disorders.

It is not generally known that one-and-a-half centuries before Captain James Cook used citrus fruits to prevent the onset of scurvy during his quest to find Terra Australis, which resulted in his discovery of New Zealand and Australia, Dr William Vaughan had already prescribed lemon oil to treat the condition. Vaughan also said that lemon "cureth the wormes in childrens bodies".³¹ While "Bachelor of Physicke" Thomas Cogan noted that lemon syrup is good for expelling kidney stones³², Dr Walter Baley expressed the belief that lemon juice is an admirable substance for preserving the eyesight.

Because moist, viscous foods harm the organs—including the eyes—the humoral dryness of lemon, he said, has the opposite effect.³³ Galen's views on the medical properties of lemon were cited by the horticulturalist John Gerard. In his lengthy book *The Herbal*³⁴, first published in 1597 and based on a translation of Flemish physician and botanist Rembert Dodoens's 1554 book *Cruydeboeck* ("Herb Book"), Gerard explained how lemon medicine works. Basically, while the fruit's coldness cools fevers and its dryness counters phlegmatic conditions, the lemon's astringency and sharpness cuts through corrupt humours, kills infections and dissolves gravel and stones:

*...being often used, it represseth choler which is in the stomacke, and procures appetite: it is excellent good also to be given in vehement and burning fevers, and against all pestilent and venomous or infectious diseases. It comforteth the heart, cooleth the inward parts, cutteth, divideth, and maketh thin, grosse, tough, and slimy humors. Of this foresaid sharp juice there is a syrup prepared, very good against the foresaid infirmities. The distilled water of the whole limons, rinde and all, drawne out by a glasse still, takes away tetteres and blemishes of the skin, and maketh the face faire and smooth. The same being drunke provoketh urine, dissolveth the stone, breaketh and expelleth it. Two ounces of the iuice of Limons, mixed with the like quantitie of the spirit of wine, or the best Aqua vitae, and drunk at the first approach of the fit of an ague, taketh away the shaking presently. The seed of all these doth kill wormes in the belly, and driveth them forth: it doth also mightily resist poyson, and is good for the stinging of scorpius, if it be inwardly taken.*³⁵

Charles Estienne in *L'agriculture et maison rustique*³⁶ agreed with these observations, but the medicinal properties of lemon go far beyond that. Lemon relieves sunburn; its antiseptic properties make it useful for treating flesh wounds; it can be used as a constituent in a medicine to cure syphilis; and drinking lemon juice aids the development of babies.³⁷

The much-travelled gentleman Fynes Moryson believed that inhaling the dried leaves of lemon prevented him from

becoming seasick by countering the miasma emanating from the sea and ship and settling the stomach.³⁸ The New World colonist William Bradford found that drinking lemon juice on an empty stomach prevented his seasickness.³⁹

Bradford's logic was unflawed, for Dr Andrew Boorde, an eminent English physician who travelled widely, wrote in *A compendious regyment* that "in no wyse eate no meate [food] unto the tyme the stomacke be evacuated of all ill humours by vomed or other convenient wayes, for els crude and rawe humours undygested wyll multiply in the body to the detryment of man".⁴⁰ If one has an overabundance of black bile, however, or if that humour is corrupted, one needs to evacuate the offending humour; thus, taking lemon syrup is likely to help. But as Oxford scholar Robert Burton noted, "waking by reason of their continuall cares, feares, sorrowes, dry braines, is a symptome that much crucifies, melancholy men, and must therefore be speedely helped, and sleep by all meanes procured, which sometimes is a sufficient remedy of it selfe without any other physick".⁴¹ A good night's sleep therefore was, and still is, aided by having a lemon- or rose-filled pomander in the chamber or by burning rose oil or lemon oil to prevent the tainting of the melancholic humour.

Eating According to Time, Order and Climate

When eating humorally balancing meals to prevent or cure illness, however, one needs to take account of the time of day, the order in which food is eaten, and the current climatic conditions.

Four centuries ago, physicians understood that eating the right foods at breakfast time helps to restore the body to its optimum condition. For example, while the heat and dryness of mustard sauce consumed at that time "clenseth the humours of the head", figs, if eaten on an empty stomach "well clensed from humours", are "good of digestion, they ingender good blood, clense the stomach, lungues, kidneis, and bladder".⁴²

Regarding supper, the quantity of food eaten at the end of the day can be greater than the quantity eaten at dinnertime (i.e., midday to early afternoon); but supper (late evening) should consist of items that are fully digested before sleeping. As Dr Moffett said:

*Now if any shall object, that no sleep can be wholesome or sound after supper, because it is taken upon a full gorge, I answer him thus: Physitians...teach, that they [as humans] are not like swine and beasts, first to fill their bellies, and then presently to sleep upon it, but to sit or walk easily after supper for an hour or more; to settle their meat to the bottome of their stomach, that it may prove less vaporous to the head, and be sooner concocted lying nearer the liver.*⁴³

According to Moffett, two of the many vaporous foods that should be avoided at suppertime include olives and butter. The former "are best in the midst of meat with a French salad; for being first eaten, they lye heavy in the stomach, and being last eaten, they offend the head with their brackish and salt vapours, which hinder sleep and encrease thirst". The latter, he noted, "is best at breakfast, tollerable in the beginning of dinner; but at supper no way good, because it hindreth sleep, and sendeth up unpleasant vapours to anoy the brain; according to the old Proverb, *Butter is Gold in the morning, Silver at noon, and Lead at night*".⁴⁴

At any particular sitting, the order in which food is eaten is important. This is because foods are digested at different rates, and some items lying on top of undigested matter can corrupt the humours and lead to illness. Two good examples of this are peaches and apricots. The Italian physician Guglielmo Gratarolo noted that these fruits "...are profitable to the stomacke and if they be ripe, they mollefie and comfort the belly being eaten before other meates. But eaten after other meates, they are both corrupted themselves, and also corrupt the other meates that are neere unto them." Dried peaches and apricots are different, however. These, Gratarolo explained, "must be eaten not before but after other sustenance, because they are not onely heavy to the stomacke, but also give very little nourishment".⁴⁵

Climatic conditions at any given time must also be taken into consideration. Hotter and drier weather than usual may be good news for phlegmatics, but it holds the potential to be dangerous for choleric. Thus it is prudent to adjust one's diet; for as physician Christopher Langton explained, "[i]n summer we must endever oure selves, that oure bodies may be soft, and colde, and therfore we must eat lesse and drinke the more, and eat for the most part boyled meates, and such as is colde".⁴⁶ Such cold meats include many vegetables and most fresh fruits. Conversely, cold, damp conditions necessitate the removal of certain foods from the diet that would otherwise exacerbate the problem of producing too much phlegm. In winter, therefore, "more meat and lesse drinke, and meates and drinks that be hot and drye, as rosted meates, and wyne then may safely be dronken, withoute water".⁴⁷ At this time of the year, it is safer not to eat fruits like melons and plums unless prescribed to do so.

Evidence of our ancestors' humorally based food choices can still be seen all around us.

Mulled wine, or *Gluhwein*, is usually associated with the Christmas season in the northern hemisphere. The humorally warm red wine and spices used to make this beverage counter the effects of the winter's cold—and have done so for at least two millennia. Then there is "dry" white wine. Clearly there is nothing dry about white wine if you spill a glass of it over your shirt or blouse; but unlike "warming" shiraz, merlot and cabernet sauvignon, some whites are "dry" in the humoral sense of the word. The lemon or vinegar we put onto fish neutralises its moistness and viscosity; mustard sauce heats and dries cold, moist beef; and strawberries that are humorally cool and dry in

the first degree need—and have needed for centuries—warm, moist sugar to "correct" them. These days, the effect of eating strawberries as part of our "5+ A Day" (or "2 & 5 A Day" or "5 A Day") diet does not diminish when they are eaten along with other foods. Ancients also were aware of the benefits of eating fruits and herbs along with other foods, but they also knew correctly and precisely that one size does not fit all regardless of medical condition.

An Ancient Medical Science Reassessed

In summary, few people would be rash enough to doubt the very real medical progress that has been facilitated by scientific research in recent years. Similarly, it seems obvious that modern nutritional theory is enabling many people to live longer. To those outside the medical profession, however, it is equally obvious that the latest advice (whatever that may be) is not, and never has been, the final word of wisdom.

Does ancient medical knowledge lose its validity because of its age—even though the sages who practised it had a complex (and accurate) knowledge of mathematics and astronomy? Is humourism unsound because some humours can neither be found nor measured (like astrophysicists' "dark matter" and like cosmologists' "singularity")? To be sure, modern medicine better explains some of the observable phenomena that humoral medicine indicates—but is that because we have lost touch with the latter in our headlong rush to embrace innovation?

Perhaps the true value of humoral medicine lies in its assured and correct recognition that we all have different nutritional needs. If so, it is simple enough to recover; for the endurance and resilience of this ancient science spawned a wealth of books with which we can gauge its accuracy.

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Towards an Economic Reset in 2015-16?

As the Super Shemitah year comes to a close, China is preparing to challenge the US dollar with a gold-backed yuan, currency wars are ruining economies while negative interest rates and bail-ins are threatening depositors and bond-holders.

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The Super Shemitah Year

The Shemitah (*shmita*) or sabbath year occurs every seven years, according to the Old Testament books of Exodus and Leviticus. The current Shemitah year began on 25 September 2014 and ends on 13 September 2015, known as Elul or "wipeout" of debts day. Elul will also be the culmination of a 49-year cycle, the Super Shemitah, which is supposed to be followed by a Jubilee year when all debts are forgiven.

Anyone familiar with the Old Testament will recall the story of Joseph, son of Jacob, who was able to interpret the Egyptian pharaoh's dream of seven fat cows being devoured by seven thin cows as seven prosperous years being followed by seven years of famine. The key to the parable is the seventh cow, which represented the final year of famine. Joseph received divine instructions that during the Shemitah year the land was to remain fallow, and the wipeout of debts in the following year was to be a blessing. However, throughout biblical history, whenever Israel turned away from God the blessing became a sign of judgement.

Fast forward to 2014 and Rabbi Jonathan Cahn revealed the relevance of this ancient Judaic tradition in his book *The Mystery of the Shemitah*. Not to be dismissed as yet another end-times prophecy writer, Cahn has demonstrated that the Shemitah has immediate importance to economic cycles and events in modern times. Whether the Old Testament God is still blessing and cursing Israel is not as important as the fact that the top echelons of the world financial systems are run by people who believe in the Shemitah cycle and can manipulate crises, depressions and booms to manifest it.

At a Prophecy in the News conference in March 2015 in Orlando, Florida, Cahn pronounced:¹

"For years, financial observers have been mystified why it is that all the greatest crashes tend to take place the same time of year. When is it? September to October. What if we take the greatest crashes in history? Do any of them take place at the end of the seven-year cycle of the Shemitah at the time of the wipeout? And the answer is, 'Yes'. Every single one of them does. And the thing is the phenomenon is increasing. It's intensifying."

Cahn noted earlier in his lecture:

"I will state a warning which I have stated before. Whether it comes in this time parameter of the Shemitah or the year following or not, I believe a great shaking is going to come to this land and to the world that will involve the collapsing of the American economy and the removal of its blessings and prosperity.

"Whether it begins with the economic realm or not, I believe it's going to be bigger than the economic realm and it may have the effect of famine or cutting off infrastructure for a time. The shaking doesn't have to take place in the Shemitah [year], but I believe we need to be ready."

Cahn has demonstrated that key events surrounding the current economic system have taken place during a Shemitah year over the past century. These include: the global financial crisis of 2008; the destruction of the World Trade Center and subsequent stock market plunge in 2001; and the stock market crash of October 1987.

Astrological signs such as eclipses and blood moons appear to magnify the power of any particular Shemitah year. Commenting on Cahn's findings, WND.com noted:²

"In 1931, a solar eclipse took place on Sept. 12—the end of a 'Shemitah' year. Eight days later, England abandoned the gold standard, setting off market crashes and bank failures around the world. It also ushered in the greatest month-long stock market percentage crash in Wall Street history.

"In 1987, a solar eclipse took place Sept. 23—again the end of a Shemitah¹ year. Less than 30 days later came Black Monday, the greatest percentage crash in Wall Street history."

The current Shemitah year also sees the rare occurrence of four blood moons and a partial eclipse of the Sun which

takes place on 13 September, the last day. Furthermore, the four blood moons all occur on Jewish feast days, which is a rare event.

Moreover, 2015-16 is the first time in over 2,000 years that the blood-moon tetrad occurs during a Shemitah year, which magnifies the blessing or judgement.

The following year, September 2015-16, is known as a Jubilee year, such as occurred when the biblical Jews were instructed to wipe all debts. However, when they disobeyed the strictures of the Shemitah and Jubilee, great disasters befell the Israelites, such as the destruction of their temple in Jerusalem.

The 2015-16 Jubilee year is already shaping up to be one of economic recession, or worse, as debt is drowning people and countries on a worldwide scale. Although it is extremely unlikely that there will be a general Jubilee of all personal and government debt, a reset of the monetary system is the more likely scenario.

At the National Press Club, Washington, DC, on 15 January 2014, International Monetary Fund (IMF) leader Christine Lagarde issued a cryptic message about "the magic seven" to a befuddled audience, expounding the numerological properties of this number and its derivatives.³ Many people saw it as a reference to an economic reset taking place on 7 July 2014, which failed to occur. In retrospect, she appeared to be discussing the Shemitah year, considering it "magic" for the IMF.

The Shemitah year started with a whimper, with volatility in the markets and acknowledgment of China as the world's largest economy, although this is not unusual, according to Cahn, who believes that the negative aspects of a Shemitah year occur just before its end.

China's Role in the New Economic Order

At this time, the US dollar (USD) is still the world's reserve currency, which means that most of the world's trade, and particularly oil, is still priced in US dollars. Over the past couple of years, China has challenged this dollar hegemony by setting up renminbi swap facilities in Europe and North America which will allow these countries to use the yuan for trade. Starting with a swap facility with the UK on 15 October 2013, these facilities were extended to Singapore (22 October 2013), France (20 June 2014), South Korea (18 July 2014), Germany (18 July 2014) and Canada (8 November 2014).

According to Porter Stansberry in his book *America 2020: The Survival Blueprint*, China and the USA are locked in a stranglehold whereby the Chinese own \$1.5 trillion of US debt which they know can never be repaid:⁴ "China is now engaged in a full-fledged currency war with the United States. The ultimate goal—as the Chinese have publicly stated—is to create a new dominant world currency, dislodge the US dollar from its current reserve role, and recover as much of the \$1.5 trillion the US government has borrowed as possible."

China has to do two things before it is formally able to challenge the USD's hegemony. First, have its yuan or renminbi become an international trading currency and have the ability to issue bonds in Chinese currency which will be purchased by other governments. The renminbi swap facilities in Asia, Europe and Canada have accelerated this process, as has the rapidly expanding sale of "dim sum" bonds in Chinese currency. Second, China is accumulating vast reserves of gold in order to become a/the gold-backed reserve currency. Although its official gold reserves are less than the official reserves of the USA, China is the world's top producer of gold, all of which is kept in the country. Furthermore, analysts like Jim Willie believe that the Chinese hugely understate their gold holdings which are much, much higher than those remaining in the USA. Stansberry states:⁵

"The Chinese are slowly hedging their exposure to the dollar by becoming the world's leading gold investor. By building a huge stockpile of gold, they will be able to back their currency with the world's traditional form of money.

"Once they make the yuan freely convertible to gold, they will have created tremendous demand for their bonds and bills by making their currency the world's most reliable. The impact on the dollar will be catastrophic."

The AIIB and China

The Asian Infrastructure Investment Bank (AIIB) is an international financial institution proposed by the government of China for the purpose of providing finance to infrastructure projects in Asia. In April 2014, Premier Li Keqiang delivered a speech at the opening of the Boao Forum for Asia, proclaiming that China was making preparations with relevant parties in Asia and Europe for the AIIB.

In June 2014, China proposed doubling the registered capital of the bank from \$50 billion to \$100 billion and invited India to be a founding member. By October 2014, 21 countries across Asia had signed the Memorandum of Understanding which formally recognised the bank's establishment. By March 2015, Hong Kong, Australia, South Korea,

Germany, France, Italy and the UK had applied for membership, with Britain also pledging to lend money to the Chinese-led bank. As of 13 April 2015, there are 47 Prospective Founding Members and 10 countries applying for

membership. North Korea and Taiwan have had their applications rejected.

Despite opposition from the USA, both the World Bank and the IMF have endorsed the new bank, which is seen as a rival to these western-led institutions, probably because they want a slice of the massive capital generated. Christine Lagarde said at the opening of the China Development Forum in Beijing in March 2015 that the IMF would be "delighted" to cooperate with the AIIB. World Bank Managing Director Sri Mulyani Indrawati told Xinhua in an interview:⁶

"Any new initiative that will mobilize funding in order to fill infrastructure gap is certainly welcome [sic]. World Bank really welcomes the AIIB initiative.

"We will definitely open for cooperation with AIIB [sic]. Even now, we are working very closely in the beginning and looking at the setting, principle and framework of this institution."

America's concerns that the AIIB would be used by China to push its own strategic influences appear to be unfounded, as voting rights in the AIIB will be allocated based on the relative GDP of each member. Initially, with 21 original members, it implied that China would hold more than a 60 per cent share, but with the inclusion of other economic giants like Germany and France, China's influence will have halved. Should the USA and Japan join the AIIB, China's share of voting rights would be less than 20 per cent, which is still far more than China's voting share in the World Bank, stuck at 4.4 per cent despite its huge economic growth.

According to Professor James Laurenceson, Deputy Director of the Australia-China Relations Institute at the University of Technology, Sydney:⁷ "But there's an even bigger reason why the AIIB looks a winner: as the bank's sponsor, China has every incentive to make it so. The AIIB is only one part of Chinese President Xi Jinping's grand plan to build a New Silk Road. The bank is important not because of its size—it will start out smaller than the ADB [Asian Development Bank]—but because it will provide a test of China's leadership credentials in making this dream a reality. The eyes of the world will be watching."

Special Drawing Rights and China

China is also making moves to increase its voting rights in the IMF and include its currency in the special drawing rights (SDR) trading currency employed by this organisation. Despite revisions of the SDR by the IMF every five years, its composition remains unaltered at 42 per cent USD, 37.4 per cent euro, 11.3 per cent pound sterling and 9.4 per cent Japanese yen.

For a currency to be included in the SDR, it needs to fulfill two criteria: the economy needs a high level of participation in global export; and the currency needs to be fully convertible, which means that the country has to open its capital account so that world investors can buy and sell financial assets in the considered currency. China certainly has one of the world's largest export markets and is rapidly working towards full convertibility with its plan to implement deposit insurance in 2015.

On 20 March 2015, Reuters reported Lagarde as saying that the renminbi would be incorporated into the SDR at some point:⁸ "It's not a question of if, it's a question of when". "There's still a lot of work to be done and everyone knows that," she added."

According to this Reuters article, the first step in the review for inclusion in the SDR is an informal board meeting in May followed by formal review in the autumn. Any changes would come into effect in January 2016, but would require an IMF council majority of 70 or 85 per cent.

On 17 April 2015, the World Gold Council and the Official Monetary and Financial Institutions Forum (OMFIF) hosted a meeting in Washington titled "Gold, renminbi and the multicurrency reserve system" which was attended by financial heavyweights from central banks, the IMF and the World Bank. Although the meeting was highly secret, Lord (Meghnad) Desai, Chairman of the OMFIF, was quoted as saying that "[a] bit of gold" could help stabilise SDRs. "We could ask that gold be nominated as part of the SDR. That is one thing I think is quite likely to happen."⁹

The Shanghai Gold Exchange

On 29 September 2014, the Shanghai Gold Exchange (SGE) launched its international board in a new free-trade zone. China is currently the world's biggest producer and consumer of gold and the SGE gives it a chance to increase its influence over the global gold market, which is dominated by the COMEX (New York) paper and London Bullion Market Association gold markets. Physical gold is being sold in contracts of 100 grams and 1.0 kilogram in yuan.

Now the biggest physical gold market in the world, the SGE, which is run by the People's Bank of China, will not only eventually challenge the western gold futures-driven market but is likely to reset the price of gold at a much higher price.

These recent developments show clearly that China is aiming if not to topple the US petrodollar then to make the

renminbi one of the world's leading currencies.

Should estimates of China's huge gold reserves be accurate, we can also expect to see China's challenging the fiat USD for financial domination in what may be a global currency reset.

Recent developments also indicate that this currency reset may be spearheaded by current financial institutions like the IMF and World Bank. Three possible scenarios are: the USD loses world reserve currency status to the IMF's SDR; the Chinese renminbi may be added to the SDR basket in the near future; and gold may also be included in the SDR over the next few years.

G20 Brisbane Summit: Roadmap to Universal Bail-ins

Prior to the G20 Brisbane summit in November 2014, the Financial Stability Board (FSB) published a paper, "Key Attributes of Effective Resolution Regimes for Financial Institutions"¹⁰, which was designed to set the agenda. In it are plans to mitigate the risks posed by the "too big to fail" institutions which required government bail-outs during the global financial crisis by introducing the bail-in resolution first applied in Cyprus in 2013.

(See my article "The Cyprus Template: Banking Deposits at Risk" in NEXUS 20/05.) The paper's preamble states: "The objective of an effective resolution regime is to make feasible the resolution of financial institutions without severe systemic disruption and without exposing taxpayers to loss, while protecting vital economic functions through mechanisms which make it possible for shareholders and unsecured and uninsured creditors to absorb losses in a manner that respects the hierarchy of claims in liquidation."

The third item clearly states who will cover the losses in a bank insolvency:

"(iii) allocate losses to firm owners (shareholders) and unsecured and uninsured creditors in a manner that respects the hierarchy of claims".

To translate: the object of an effective resolution for bankrupt financial institutions is to avoid disrupting other banks and exposing taxpayers to bail-outs while protecting the bank by making shareholders and depositors (unsecured creditors) liable for losses.

Prior to the summit, the Too Big To Fail (TBTF) plan was outlined in another FSB document.¹¹ Building upon the "Key Attributes" paper which described "the powers and tools that authorities should have to achieve this objective", the TBTF powers include: ". . . the bail-in power, i.e., the power to write down *and* convert into equity all or parts of the firm's unsecured and uninsured liabilities of the firm under resolution or any successor in a manner that respects the creditor hierarchy and to the extent necessary to absorb the losses. Hence, the resolution strategies that are being developed for G-SIBs [global systemically important banks] provide for a recapitalisation by way of a bail-in."

Furthermore, under new rules known as Basel III, senior creditors (banks or derivative counterparties, for example) have precedence over unsecured creditors who are the bank's depositors. Banking deposits will be used as capital by an insolvent bank to shore up its capital, and the hapless depositors will likely be issued with shares of the failed bank.

These new rules were endorsed in Brisbane along with bail-in bonds called "gone-concern loss-absorbing capacity" (GLAC) for TBTF banks. These GLACs offer higher yields for the risks incurred. These say in the fine print that bond-holders agree contractually that in the case of the bank's insolvency, the lender's money will be turned into bank capital. Since many pension funds purchase bank bonds, they would be put at extreme risk during a financial crisis.

Austrian Bank Bond-Holders Face Bail-in

The Austrian bank Hypo Alpe-Adria was bailed out for over 5.0 billion euros in 2008, and in late 2014 was turned into a "bad bank" named Heta Asset Resolution AG which was meant to sell off its remaining assets. However, in early March 2015, Austria's Financial Market Authority (FMA) discovered a 7.6 billion euro capital shortfall in the "bad bank", and the Austrian government vowed to hand over not another single euro to Heta.

The Austrian government has opted to use new legislation based on the European Union's Bank Recovery and Resolution Directive (BRRD) which will see bail-ins of bond-holders, among whom are Deutsche Bank and UBS. Although Heta does not carry deposits, the BRRD includes provisions for confiscations of deposits over a certain amount. Heta bondholders will suffer "haircuts" of at least 30 per cent, and all payments on Hypo bonds will be halted until at least May 2016.

The bail-in of bond-holders and depositors is likely to increase across the eurozone as more insolvent banks are turned into "bad banks", whose assets are stripped to pay creditors.

Currency Wars

Over the past few years, numerous countries have competed against each other to lower their exchange rate in order to stimulate exports. These currency wars also export unemployment to trading partners by showering them with cheap goods and destroying domestic jobs and production.

In 2013, the Swiss felt compelled to debase their currency by pegging it to the euro when their franc's value soared, making their exports more expensive. However, in a shock move, on 15 January 2015 the Swiss National Bank surprised the world by unpegging the Swiss franc from the euro without any warning. Within minutes, the Swiss franc soared as far as 30 per cent before settling down to about 15 per cent higher.

The shock move hammered the Swiss and European stock markets and hedge funds that rely on the stable value of the Swiss franc around the world.

The reason why Switzerland made this surprise move, which cost the country billions in lost exports and a falling stock market, is simple: the European Central Bank was expected to introduce massive "quantitative easing" (QE) or money printing, which would have dragged down both the euro and the franc.

The USA should take heed because the Chinese yuan is pegged to the USD in a marriage which benefits both countries. The USA exports its reserve currency dollars to China by buying cheap Chinese exports. As a result of this 21-year-old currency peg, China has a huge trade surplus and has accumulated foreign reserves of nearly US \$4.0 trillion.

However, should China fear that continual "quantitative easing" will debase the USD and drag the yuan down, and should China fear that it will be lumbered with a \$4.0 trillion declining asset, it may decide to unpeg from the dollar without warning, as did the Swiss with the euro. Such a move would immediately send stock markets around the world into a tailspin and double the cost of US imports from China almost overnight.

If China chooses to revalue the yuan, its exports will suffer; but if it devalues the yuan because of huge debts created by the shadow banking and credit boom, capital will flee from China to other markets. A weaker yuan would also hurt commodity economies like Australia, whose coal and iron ore industries rely on exports to China.

Currency wars, like all wars, have their losers and their winners, especially speculators who use the derivatives market as their casino.

The Risks of Deflation

The years 2013-15 have witnessed deflation of currencies (with the exception of the Swiss franc and USD), commodities, precious metals and oil and the lowering of interest rates to zero or negative in numerous countries, and these trends are expected to continue. Global trade has also slumped, and the Baltic Dry Index, which measures the volume of merchant shipping around the globe, has reached a critically low point.

Deflation is especially dangerous to debt-ridden economies which still have to pay debt with less revenue. Without dramatically lowering interest rates to zero or negative, many of these economies would be at risk of collapsing into hyperinflation.

As the cost of oil has always been linked to inflation, the massive plunge in the price of oil in September 2014 indicates a slide into a deflationary recession.

The Oil Price and Junk Bonds

This plunge in the price of oil in late 2014 caught most economists off guard, even though it was a strategy cooked up between the USA and Saudi Arabia to bankrupt oil producers Russia and Iran. Despite being a rare boon for the average citizen, the fall in the oil price has devastated other nations like Venezuela. The Saudis also used the strategy to rid themselves of the US shale oil industry which had been growing exponentially since 2011 with stimulus money given to Wall Street banks by the Federal Reserve.

Since 2010, energy companies have raised \$550 billion in cheap bonds to increase production and fund further acquisitions and development. These junk bonds are speculative, sub-investment-grade instruments which offer high returns for risky ventures. By 2014, energy represented 22 per cent of the junk bond market—up from 9.0 per cent of the market in 2009.

According to strategic risk consultant and author F. William Engdahl:¹² "Now as oil prices hover around \$49 a barrel, the shale oil companies that indebted themselves with junk bonds to finance more drilling are themselves facing bankruptcy or default more and more every additional day the US crude oil price remains this low. Their shale projects were calculated when oil was \$100 a barrel, less than a year ago. Their minimum price of oil to avoid bankruptcy in most cases was \$65 a barrel to \$80 a barrel. Shale oil extraction is unconventional and more costly than conventional oil.

Douglas-Westwood, an energy advisory firm, estimates that nearly half of the US oil projects under development

need oil prices greater than \$120 per barrel in order to achieve positive cash flow.

"US shale producers Quicksilver Resources, American Eagle Energy, Saratoga Resources and BPZ Resources all missed interest payments this year. Houston oil field service firm Cal Dive International just filed for Chapter 11 bankruptcy."

Hundreds of thousands of jobs are drying up in the shale oil industries and industries which support them.

John Melloy of CNBC wrote an article "Could oil collapse cause next credit crisis?" in November 2014 which warned:¹³ "Everyone could suffer if the collapse triggers a wave of defaults through the high-yield debt market and, in turn, hits stocks. The first to fall: the banks that were last hit by the housing crisis.

". . . banks are even more dependent on a happy junk market as they make a market in the bonds. Any collapse in prices could cause bidders to run and liquidity to dry up.

"They also issue high-yield debt exchange-traded funds, which have been wildly popular with investors over the last decade. If that popularity turns into heavy selling, the banks may not be able to sell the bonds fast enough to meet the pricing demands of the ETF." According to former banker and author Satyajit Das:¹⁴ "Losses will affect bank[s] and investors. Debt issued by major oil producers is held widely by insurance companies, pension funds, fund managers and retail investors. Structured finance arrangements, such as collateralised loan obligation[s] (CLOs), which contain non-investment-grade loans to energy companies, will add to the contagion.

"Low oil prices and the risks in the market of the debt of energy companies is increasingly exposing the dangers of low interest rates, QE and resulting asset price bubbles. The risk of a potential credit crisis is now real."

Negative Interest Rates

Banks which pay negative interest rates actually charge depositors a fee, rather than paying them interest. Although this is terrible for depositors and pension funds, it is supposed to help ailing economies by injecting extra liquidity. According to Bloomberg:¹⁵

"Negative interest rates are a sign of desperation, a signal that traditional policy options have proved ineffective and new limits need to be explored. Rates below zero have never been used in an economy as large as the euro area."

In June 2014, the European Central Bank cut interest rates to a record low of 0.15 per cent and imposed a negative interest rate of -0.1 per cent on eurozone banks to encourage them to lend to small businesses. Currently the central banks of Denmark, Switzerland and Sweden have cut interest rates to negative.

Government bonds, especially short-term bonds, have also turned negative in countries such as Germany, Austria, Denmark, Finland, the Netherlands and Switzerland. This means that investors purchase government bonds knowing that they'll take a loss. It also means that governments are able to borrow money at negative interest rates. This follows the pattern before 2008, when investors flocked to safe, albeit low or even negative-yield, investments.

In April 2015, the Australian Office of Financial Management, which manages the government's debt program, sold \$200 million of inflation-linked bonds maturing in 2018 to investors at a yield of -0.0763 per cent, making them Australia's first negative-interest bonds.

Liquidity Crisis, War on Cash, and Capital Controls

At the World Economic Forum meeting in Davos in January 2015, the Governor of the Bank of England, Mark Carney, warned of possible trouble in 2015 if the (US) Federal Reserve tightens monetary policy and liquidity evaporates:¹⁶

"We are particularly concerned about an illusion of liquidity that has existed in a number of financial markets. I would say that illusion of liquidity is gradually being disabused."

A liquidity crisis refers to an acute shortage of liquidity, or lack of cash flow, so that bills cannot be paid. Increasing levels of debt and a soaring USD led to this warning by the IMF in its April 2015 "Global Financial Stability Report", as related by Ambrose Evans-Pritchard:¹⁷ "Margin debt as a percentage of market capitalisation remains higher than it was during the late-1990s stock market bubble. The increasing use of margin debt is occurring in an environment of declining liquidity".

"Lower market liquidity and higher market leverage in the US system increase the risk of minor shocks being propagated and amplified into sharp price corrections". Evans-Pritchard analysed the paper and commented: "The ratio of non-financial corporate debt to underlying assets has reached 27pc, even higher than it was just before the Lehman crash of 2008.

"This is becoming hazardous as the US Federal Reserve prepares to raise rates, a move that risks a spike in global borrowing costs and may cause liquidity to dry up almost overnight.

". . . the collapse of the Swiss currency floor in January showed how quickly liquidity can vanish, acting as 'a powerful amplifier of financial stability risks'."

Under the guise of anti-money-laundering and anti-terrorism legislation, central banks have been waging a quiet war against cash for several years by instituting zero or negative interest rates, capital controls on cash withdrawals and other disincentives.

However, a more sinister agenda behind the cashless push lies in the ability of cash transactions to remain anonymous and how this impedes governments that are pushing for less privacy. Digital currency can be tracked, manipulated by banks and governments and stolen by hackers. It also allows Big Brother to snoop on every aspect of our financial existence.

Banks like J.P.Morgan recently enacted a policy banning cash payments for credit cards, mortgages and auto loans, and has disallowed the storage of any cash or coins in safety deposit boxes across the USA.

The French government used the tragedy at the *Charlie Hebdo* offices to institute further capital controls on the movement of cash. In March 2015, the Minister of Finance, Michel Sapin, rolled out eight new restrictions on cash, such as a prohibition on making more than 1,000 euros in cash payments (down from 3,000 euros), a limit of 10,000 euros per month in cash withdrawals, and foreign exchange controls limiting anonymous transactions to less than 1,000 euros.

On 26 April 2015, Zero Hedge reported¹⁸ on a Swiss bank which was refusing to allow a pension fund to withdraw its funds. Since Swiss banks offer negative returns on deposits, a pension fund manager decided that rather than have his fund lose 25,000 Swiss francs annually, he would move the 10 million francs cash into an external vault. However, the unnamed bank told him: "We are sorry that, within the time period specified, no solution corresponding to your expectations could be found." According to Swiss banking expert Hans Geiger, this "is most definitely not legal" as the pension fund has a sight account and has the contractual right to dispose of its money on demand.

Zero Hedge reported¹⁹ on 20 April 2015 that Greece, about to default on its loans, has decreed that due to an "extremely urgent and unforeseen need" it would be "obliged" to transfer (confiscate) "idle cash reserves" located across the country's local governments, such as cities and municipalities, to the Greek central bank. This came a few weeks after Reuters reported:²⁰ "Greece is tapping into the cash reserves of pension funds and public sector entities through repo transactions.

"At least part of the state's cash needs for the month will be met by repo transactions in which pension funds and other state entities sitting on cash lend the money to the country's debt agency through a short-term repurchase agreement or up to 15 days.

"The money is lent to the debt agency for one to 15 days against collateral—mostly Greek treasury paper held in its portfolio—and is paid back with interest at expiry." While Greece managed to pay its March debt to the IMF, the April move to raise as much as 2.0 billion euros by raiding municipal coffers has angered many local politicians who are wondering, like the pensioners, if the money will ever be repaid .

Author's Note:

This is a developing story but the outcome is looking more like a sovereign debt default. Updates and more examples of threats to our wealth will be provided on my Karen Mutton Facebook page, at <http://www.karenmutton.com> and at my presentation at the July 2015 NEXUS Conference in Queensland, Australia.

About the Author:

Karen Mutton is an independent researcher and retired history teacher living in Sydney, Australia. Her current research effort is focused on the tenuous state of the global economic and banking structures and how a future collapse will affect our lives and finances. Her articles "Global Currency Reset", "Pension Confiscations, Bank Bail-ins and Levies" and "The Cyprus Template: Bank Deposits at Risk" were published in NEXUS 21/03, 21/02 and 20/05 respectively. Her book *Threats to Our Wealth* was reviewed in NEXUS 21/06. Karen Mutton is a scheduled speaker at the NEXUS Conference on 25-27 July 2015. She can be emailed at kazganymede@yahoo.com.au.

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Decoding The Geometry of the End of Time

The Yuga system of cycles supports astrophysicist Kozyrev's hypothesis about the spiralling geometry of time, but its concept of spin includes the sound emitted by that spin. These energetic processes interface with a perceiving and a conceiving consciousness in the act of creation.

by Robert Lawlor © 2015

Edited from the preface of his book *The Geometry of the End of Time: Proportion, Prophecy and Power* (Lightning Source Australia, 2015)

He comes to the first pylon. He speaks. Lady of terror, whose heart is a wall, mistress of destruction. Lady of alarm, ruin and despair, too-wise bird of no good omen. Priestess and dancer whose words are fires that crackle and spit in a man's face. Lady of rage, she creates nightmares by the thousands. She spins. With a black word she drives back the serpent and the traveller goes on his way. Her name is "Vulture Mother of Terror". Blessed is the lady.

— Normandi Ellis
Awakening Osiris: The Egyptian Book of the Dead^f

There exists an intriguing etymological overlay in the Indo-European lineages of our contemporary words "time" and "space" with "temple" and "tempest". This work is an exploration of a possible shared mythological origin of these terms, which designate such strikingly different phenomena. The common source may be a mythic figure, the Dravidian Goddess Kali, the Dark Mother of Time, who out of cosmic blackness gives birth to all the forms, energies, patterns and beings of the created universe from stars to spider webs. Kali is also the one who, in measured rhythmic durations known as Yugas, will tend to mature then degenerate and totally destroy all that she has put forth.

These conjectures are stark and disturbing to our conventional conditioning of time as "progress" or "evolution". However, if one takes into account the acceleration in number and scale of wars with an increased capacity for worldwide destruction, coupled with the economic and social chaos and corruption that has occurred since 1938-39 and finally combined with the successful research into nuclear weapons and energy, the perspective alters significantly. These trends, having continued over the last 75 years, were accurately prophesying the myths of Kali which also stated that there is much more to come. I begin with just a few of the clues that one finds in the dictionary:

The commonality of "time" and "temple" no longer enters into our conceptualising of time, although physiologists now recognise that the flesh body is entirely a temporally organised structure, an "architecture of time". We also now know with certainty that the great ancient temples such as Newgrange, Stonehenge, the Great Pyramids of Egypt and Angkor Wat, together with temples and pyramids elsewhere, were built to record the auguries of the celestial patterns of time. The word "temple" also relates to the enclosure of the brain protecting the delicate biocerebral instrumentation that converts atmospheric or etheric temporal pulsations into sounds, intonation and ultimately language. At a shared level in the brain, this auditory capacity operates in concert with the optic procedure of converting light intensities of measured temporal frequencies into form and colour. The temples also enclose a highly sensitive glandular region (pituitary and pineal) which converts light, temperature and other temporal signals of the atmosphere and earth into biochemical hormonal reactions. This certainly marks this functional region of the skull as the temple and sacred sanctuary of conscious life.

The two words *tempest* and *tornado* have particular significance, as the ancient philosophy of cyclic time defines our current era as one in which the creative forces of our world violently implode. We then confront the destructive face of the powers of creation, which in India were named Ma-Kali. This alteration of time, from creation to destruction, will induce disruptive climatic and seasonal changes. The fourfold seasonal progression has a metaphorical and significant numerical connection with the Yuga system, and traditionally served as an analogue of the archetypal phases of organic life:

1. from infancy and childhood = Spring;
2. to youth and fertility = Summer;
3. to adulthood and maturation = Autumn;
4. to old age and death = Winter.

The tempest and the tornado will twist these fourfold progressions of life and time; the young become old, and the old become infantile and senseless as this era drowns in the roar of technological turbulence. These then are the powers acknowledged to exist in the Latin word *tempus/tempus* as well as in the Dravidian Sanskrit Kalpa-Kali. It is from the instantiation of this ever-motionful temporal being that all the substances and architectures have been created: cosmic, terrestrial, cultural, biological and intellectual.

Temple	Old English <i>temple</i> , Latin <i>templum</i> : a space marked out for the observation of the auguries or prophecies, akin to <i>tempus</i> , time.
Temples	Latin <i>tempus</i> : the flattened space on each side of the forehead.
Tempo	Latin <i>tempus</i> , times: the rate of speed or spiralling motion of an activity or musical composition.
Tempest	Latin <i>tempestas</i> : weather, temperature, seasons, storms. Old French <i>tempus</i> : time or temporal.
Tempestarii	In mediaeval lore, the <i>tempestarii</i> were witches who specialised in storm making. These storms sent hail, wind, thunder and lightning which pelted down on food crops just ready for harvest. The legends speak of giant creatures in spaceships (the Magonians) who landed their spaceships and aided the witches to load the flattened and fallen grain and fruits onto their aircraft. They would then fly back into the sky, to the dismay and anger of the unrewarded witches. This odd mediaeval tale will find a reasonable explanation as we delve into the stories of Kili and the End of Time.
Tornado	From Latin <i>tonon</i> : a spiralling organisation of force and thunderous, threatening sounds; a whirlwind following a flash of lightning and an explosive expansion of air and electrical discharge. A Window opens by way of the root <i>tonon</i> , which means zone. The connection is with time (<i>tempus</i>), and the element and form of sonic energy utilised in the creation of language, music and frightful natural forces.
Template	French <i>temple</i> : a pattern or model for guiding the spatial realisation of a form.

Time as an Active Force

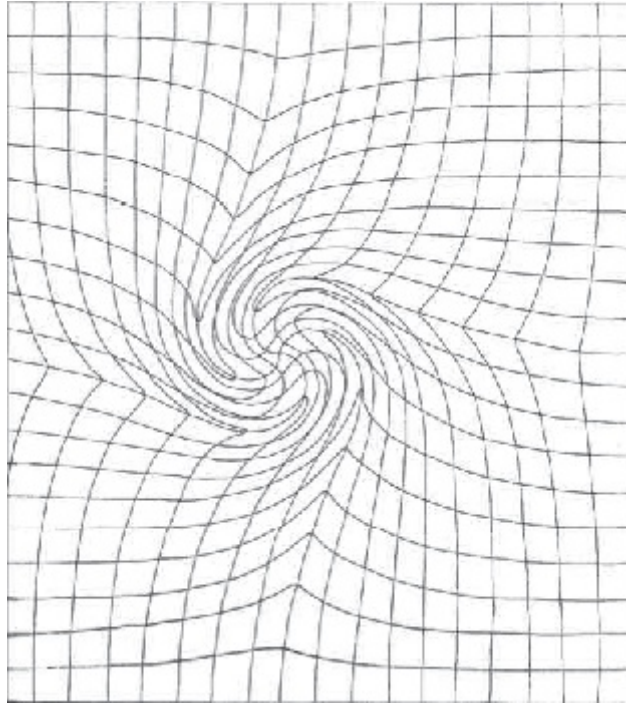
In the tradition of contemporary science and education, time is regarded as a neutral, highly regular backdrop to the events and forces occurring *within* and *with* space, as well as to the material and immaterial configurations *of* and *in* space. However, the ancient builders of the pyramids and stone circles have revealed in their monuments a very different relationship between time and space. They believed that time and space are highly distinct conceptualisations, each being partly physical and partly metaphysical. They also believed that the eternal geometric laws of spatial symmetries, dimensions and relationships found in circles, triangles, squares, cubes and tetrahedrons are exactly the same laws and proportions that govern the cycles and durations of time. In this way, space and time take on an additional quality beyond those of measurable distance and duration.

For ancient philosophers, space and time were a vast field of resonance, interrelating the forms and energies of the cosmos. They evidently also believed that time is not a neutral, graduated measurement of motion in the passage from the past via the intangible present moment towards a future. In contrast, the measuring capacity of time in modern science is tied to recurring or repetitious event patterns such as day and night, expansion and contraction, rising and falling levels of pressure, temperature or entropy. As physicists Eigen and Winkler stated:

*Physics does not describe nature; physics describes regularity among events, and only regularity among events. Physics also observes these regularities under controlled conditions of time and space, isolating the observed system or event pattern from its natural environment.*²

Perhaps due to these aspects of scientific experimentation and abstract thinking, the true nature of time has remained distorted and diminished. However, time is not simply the measure of these periodicities. As I shall develop, time is the ultimate source of the organisation, regularities and growth of all systems as well as the source of their entropy. This is precisely the philosophy of time underlying the ancient cyclic theory of the Yugas.

This idea was postulated and tested in modern science by the Great Russian astrophysicist Nikolai A. Kozyrev (1908-1983) and was verified experimentally by physicists worldwide. He formulated that "time is an active force, energetically influencing maturations, transmutation and transfiguration in the developments of the physical world". This active force of time, though more subtle, is comparable to electromagnetism and is functionally related to the movement and activities of light. Kozyrev began his enquiry by noticing how so many varied forms of life exhibit a spiralling growth pattern, and he began to view and experiment theoretically with the idea that this spiralling pattern of nature, and life itself, is a property and manifestation of time.

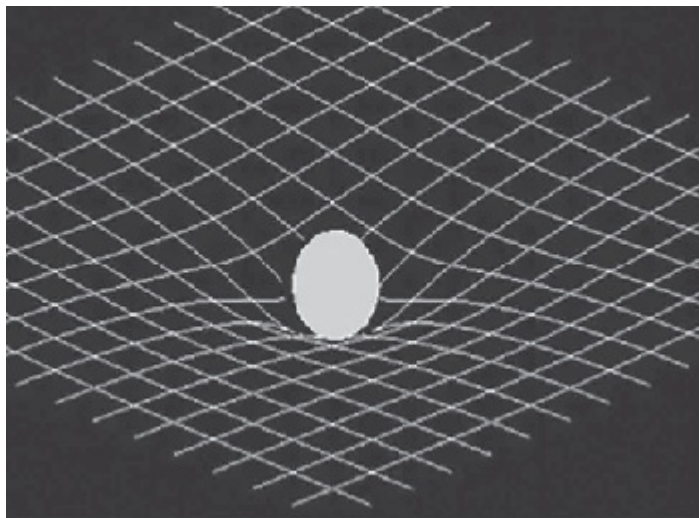


The spinning of a sphere further distorts this geometry into a spiralling curvature.

The ancient Gnostics had already named this aspect of time, which Kozyrev was beginning to clarify, as the *Materia Prima*, the metaphysical, aetheric, organising field pattern that allows for the apparent physical world to emerge.

The energy of this spiralling formative field is presently called *torsion*—a concept that can be modelled by twisting a cloth at both of its ends at once, one end in one direction and the other end in the opposite direction. A second form of torsion is to hold one end firm and twist the other in a single direction. The human torso (from the word *torsion*), if not inhibited by fear or tension, is designed to twist oppositionally during bipedal walking, with the right shoulder going forward and the left hip going back. Thus, as we walk, we simulate this spiralling force of time.

Kozyrev, when working on the mathematical calculations relating to the luminosity, mass and size of stars, observed that the intensity of light and radioactivity given off by stars could not be mathematically explained by thermonuclear fusion alone; some other source had to be involved. After 33 years of tireless, detailed research, Kozyrev came to the hypothesis that the spiralling geometry of time is the source of stellar energy. His theory reads like this. The geometry of local celestial space is a determinant in the energy output of the fusion reaction of a star. Depending on that geometry, a star will alternately give off (gate) now more energy, then less energy, into the reaction completely as a function of that geometry.³



The warping of space by gravitation.

Einstein had partially preempted Kozyrev's revolutionary theory of time in his relativity theory, describing the nature of the force of gravity. Einstein offered a new metaphoric explanation to replace the Newtonian "apple falling from the tree". He said that you must imagine universal space as being similar to a huge rubber sheet. The weight and size of a sphere formed in that sheet distort the square or cubic geometry of space into a curvature of its own form. Therefore, Einstein argued, space and time (or space-time) have a characteristic curvature, and it is this curvature that creates gravity. In other words, the pull of gravity is the tendency of forms to "slide downwards" on the spiralling curvature of space-time.⁴

Intrinsic to this spiralling motion is the principle of inversion. It is the presence of inversion that allows a spiralling vortex in mutable elements, such as water or air, to take on a stable form. Because of the dynamic balance of opposites within the symmetry of a spiral, only a measured amount of its matter or energy will be progressively dispersed or disappear out of its point of termination. Another portion will ascend as an oppositional twist of force. Thus, a universal vortical movement causes the effects of gravity as a "sliding downwards" as well as an uplifting force or levity. Edgar Allan Poe tells us of a sailor who, by careful observation as he sank into the maelstrom, understood the nature of the vortex and was carried upwards by the very spiral that had sucked him down.⁵

Both Einsteinian and Newtonian theories of gravity fail to address the inseparable complementarity of the force of gravity: that of levity. Both of these forces are as essential to the formation of a spiral as they are to life, growth and all forms of vertical ascent. They are also the function and expression of time in the ancient Yuga system.

The Edgar Allan Poe story, on the principle of complementary oppositions, serves as a metaphor for our position in the great spiralling nature of time. While we must observe and accept inexorable laws governing the direction of history, we must also seek out that which can stabilise our awareness and raise our consciousness above the fear of inevitable termination.

The Yuga System as the Nature of Time

The Yuga system provides yet another characteristic of the spiral of time, one that is coherent with Kozyrev's experiments. It is *time* that imparts the spiral patterns of growth, movement and space by means of resonant proportions between energy and form. This idea is at the nucleus of this study of the Yuga system and the nature of time.

Later in this book, I review how spiral motion conveys the primary sacred geometries found at the basis of form and number and then show how the same spiralling principle is contained in the structure and force of time as given 6,000 years ago in the Yuga system of South India. Reinforcing this connection is the fact that the Sanskrit term *Yuga* translates as "spinning, circling and turning". The Yuga spin differs from the science of torsion in that the ancient concept includes the sound emitted by the spin.

The other contemporary scientific term relating to the Yuga system and the spiralling forces of destiny is *entropy*. The German naturalist Rudolf Clausius coined this term in 1865 from two Greek words: the verb *entrepein*, which means both "to turn" and "to reverse", and the noun *tropae*, which means "transformation". The modern use of "entropy" has developed into complex statistical quantum formulas regarding thermodynamics and information theory.

However, the application to cosmology remains closer to its dictionary definition and to the ancient sense of cyclic transformation found in the Yuga system. Entropy is the degradation of the matter and energy in the universe back to the ultimate state of motionless uniformity.

The correlation of this concept of entropy as a turning or revolving process which, at a measurable stage, reverses towards universal degradation is intensely applicable to the cycles of time found in the Yuga prophecies. In other words, it is inside the corrugated folds of the spiralling Yugas of time that amorphous energies are compressed and compacted into the three levels and densities of matter: gaseous, liquid and solid.

It is in the release from the pleats of time that matter and humanity return to their spirit state. That this spiralling fate is now approaching humans as a species is the core research guiding this work.

I conjecture that to search for the current of levity is a valid exercise for us as individuals, in that an entropic, vortical closure for each of us remains an inarguable fact.

I have provided in this opening a degree of technical information, as I do not want to present this ancient prophetic tradition concerning "the end of time" as an article of faith or as a belief system but, rather, as a carefully reasoned and scientifically plausible contemplation. I feel that the understanding of time that one can gain from the philosophy of the Yugas is as, or more, important than its power of prediction. For example, the world did not suddenly become more materialised and mechanistic during the last 360-to 252-year period; the world has always had these aspects and potentials. However, it was a change in the perceptual and conceptual functions of a small elite that directed a turn in our development. Through several subsequent chapters I summarise the methods by

which the destiny of our species has been deviated.

The Universe cannot exist unless the capacities to perceive and respond to its presence also exist. The cosmos extends its "coming into being" through perception, by means of language—that is, in the signs, sounds, images and numbers which temporarily fixate combinations and correspondences, thus giving specific, symbolic qualities of the epoch or stage in the development of the perceiving consciousness and its embodied instrumentation.

Time, Perception and the Act of Creation

This thesis is founded upon certain fundamental assumptions concerning the nature of the cosmos which we inhabit. These ideas are likely to be unfamiliar, at least to some readers, thus I place here a warning about the contents of this package.

The energetic processes and substances comprising the universe hold only a potential for manifesting as an actual physical reality. That actualisation is dependent on the existence of a pre-prepared, intelligible, perceiving consciousness which takes the shape of a triad:

1. the perceiver (noun);
2. the activity of perceiving (verb);
3. the perceived (object).

Simply stated, the world and the Universe enter into the manifest state entirely within the act of a perceiving and conceiving consciousness.

Furthermore, the aspects of the Universe only change, develop or transform by means of a transformation occurring in that perceiving consciousness.

I also emphasise the nature of time and its special role in relationship to consciousness and to the space and forms in which the embodiments of this perceiving-creation is occurring.

Time imposes upon us the observation that every moment emerges from the previous moment passing through the measureless membrane of the *present moment*.

This moment-to-moment transformation of the past into the future is the work of our memory and our imagination, two functions that bond us with, and to, the invisible force from which the universe is emerging. All creation is occurring within an eternal *present moment* that paradoxically cannot exist in time or space but purely in consciousness.

Gnosis Revisited

Throughout this book I make reference to concepts that have been, or can be, associated with the very ancient, puzzling, heretical tradition known as Gnosticism. According to Gnostic beliefs, the greatest obstacle to the advancement of human consciousness has been conceptual and linguistic error, "giving a name to the nameless".

It is due to this error that we find our society stretched over an abyss between an irreconcilable duality, monotheism and atheism, with no third term upon which dialogue or integration might occur. Perhaps Gnosticism can fulfill that bridging role.

The three dominant monotheisms all adopted dramaturgies with one very simple element: One God, having a specific name, who actively intrudes in the social, political, sexual and military endeavours of human life. This specified and anthropomorphised "God" guides nations through the rise and fall of empires as well as through not uncommon plagues, famines and floods.

In this way, the deification evokes devotion and fear in their constituency. Consistent in the three Middle Eastern-European monotheisms, the ultimate "God" communes through an historic figure (whether a ruler or a military figure) who is instrumental in establishing an institutionalised church. The Gnostics believed that collective narratives, such as those found in monotheism as well as in its antithesis, atheistic secular scientism, distort human thought and perception on all levels and can only direct the formation and goals towards corrupt and self-destructive conclusions.

The following Gnostic verses address this very question and also speak to the human yearning for freedom from the millennia of warring monotheisms which continue to fracture the potential spiritual wholeness in humankind. The Gnosis is a deep, intuitive sense of the presence of an unspeakable mastery beneath all knowing and all being.

*Thou art alone the non-containable
And thou art alone the non-visible
Thou art alone the non-subsistent.*

— Gnostic hymn, preserved in Coptic⁶

*O thou beyond all things
what else can it be meet to call thee?
How can speech praise thee?
for thou art not expressible by any speech.
How can reason gather thee?
for thou art not comprehensible by any mind.
Thou that art alone ineffable
while thou engenderest all that is open to speech.
Thou that alone art unknowable
while thou engenderest all that is open to thought.
End of all things art thou
and one and all and none,
Not being one nor all, claiming all names how shall I call thee?*

— Opening lines of a hymn by Gregorius the Theologian⁷

Thematic Prologue

Consciousness does not exist. It is existences.

The basic premise of this work, as expressed in the above quotation from ancient Hindu philosophy, can be summarised in this way: the most fundamental ground of creation is not energy-matter or time-space or light-darkness; rather, it is *consciousness*. Creation is a single thought occurring within a Universal Conscious Being. This Universal Being and this thought are beyond the comprehension of the human mind, yet enter the awareness of some individuals because our species is an integral part this cosmic moment. This thought is present in creation as the Laws of Nature.

Indianologist Sir John Woodroffe reflected on this view in his important work on the Hindu tradition, *The Serpent Power*:

*...In the phenomenal world there is nothing that is neither absolutely conscious nor absolutely unconscious. Consciousness and unconsciousness are always intermingled. Some things, however, appear to be more conscious, and some more unconscious than others. This is due to the fact that Cit [i.e., consciousness] is never absent in anything, yet manifests itself in various ways and degrees. The degree of this manifestation is determined by the nature and development of the mind and the body in which it is enshrined.*⁸

This primacy of consciousness situates the potentials and purposes of the created universe on a completely different ground than that of monotheistic doctrines as well as the 19th-century materialist, mechanistic theories of Charles Darwin and the fraternity of British industrialists and merchants who prompted and promoted this pseudoscientific agenda.

An ontological enquiry into this pervasive principle requires the definition of two pairs of seemingly oppositional terms: manifest-unmanifest and physical-metaphysical.

● **Manifest**

Manifest literally means "struck by the fist (fest) or hand". More generally defined, it means "to be readily perceived by the senses and/or accessible to reason or logic". The square is the geometric symbol of manifest existence. The square comprises two oppositional yet complementary pairs with 90° angles = 360°. This is the number of degrees it shares with the universal premanifest stage of the circle.

● **Unmanifest**

Unmanifest relates to phenomena or concepts which are yet to be manifest, identified or formalised and includes those that have previously become manifest but have departed or been lost to perception or existence.

The thousands of species of plants, birds, fish, reptiles and animals driven to extinction by civilisation are a potent example of this concept. We are presently engaged in a vast extinction episode which, if undeterred, will precede to the extinction of the present form of humankind.

● **Metaphysical**

Metaphysical refers to sublimated or supersensible relatedness beyond immediate perception yet acting as an intermediary between aspects of the physical world with the subtle or spirit realms.

The principle of metaphysics is found in geometry; for example, in the relationship of the side of a square to the

diagonal of that square. As with this permanent proportion of the square, every form and species of nature holds a "seed idea" which originates and eternally persists in a pre-manifest metaphysical realm.

• Physical

Physical relates to conforming to the identification or substantiation found in nature and the laws of physics.

The physical is the contrast to the purely mental, moral and spiritual levels.

I postulate throughout this book that consciousness partakes of both the manifest and the unmanifest and of both the physical and the metaphysical. Consciousness actually serves as a boundary between these oppositional states. The initial transformation of consciousness in the act of creation is time and space, and these two experiential qualities share in that same infinite, incomprehensible presence at the core of existence.

The Hindu concepts of the Yuga and the End of Time also offer an image as to how consciousness manifests both the experience and the concept of existence:

Desiring to manifest the thought of all things, [the Immensity] vibrates and is transformed into the primordial sound with the nature of a cry. It shouts forth the universe with Its voice, which is not distinct from Itself... That is to say, It thinks and speaks the universe. Hence the Sanskrit word "Sabda" (sound and word), which are the nature of "Nada", are, at the beginning of creation, residing in all created things.

- Nada Brahma

The essential word in the above quotation is the first word, "Desiring". Ancient thought considers desire to be the most powerful emotive force, responsible for the constancy of movement throughout every level of creation.

The second word key is "speaks". In many ancient Gnostic traditions, there is the belief that all forms and concepts, all virtues and vices, all events and objects come into existence by transcendental means that are similar to the way humans transform thoughts into language and speech. It is in this parallelism that humankind is the most akin to the creative origins.

The concept of the End of Time grows more evident with each daily commentary on world events. Perhaps with vast alterations in civilisation, collective awareness and behaviours, the termination may not be provoked prior to the prophetic date given in the Yuga system as recorded in the Linga Purana.

If we can revive the ancient knowledge of cyclic time, future generations may prepare our inner capacities to confront our inevitable destiny with clarity, courage and a deepening understanding of the plan and purpose of creation.

About the Author:

Robert Lawlor, based in Tasmania, Australia, is a multitalented writer, artist and symbologist as well as an anthropological and mythological researcher.

He's the author of several books including *Sacred Geometry: Philosophy and Practice* (Thames & Hudson, 1982) and *Earth Honoring: The New Male Sexuality* (Park Street Press, 1991), and is the co-translator of two books by French esotericist R. A. Schwaller de Lubicz.

His book *The Geometry of the End of Time* (from which this article is extracted) is reviewed in this issue (22/04).

Robert Lawlor is scheduled to speak about "Sacred Geometry and the Future" at the nExUS Conference being held on 25-27 July 2015 in Queensland, Australia.

He can be contacted via the NEXUS head office in Australia: editor@nexusmagazine.com.

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ENGINEERS PURIFY SEAWATER AND WASTEWATER IN 2.5 MINUTES

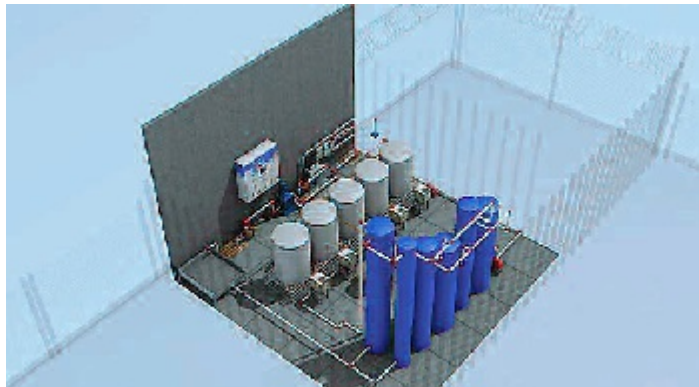
A group of Mexican engineers from Jhostoblak Corporate has created technology to recover and purify seawater and wastewater from households, hotels, hospitals and commercial and industrial facilities, regardless of the content of pollutants and microorganisms, in just 2.5 minutes.

The system, PQUA, works with a mixture of dissociating elements capable of separating and removing all contaminants as well as organic and inorganic pollutants.

"The methodology is founded on molecularly dissociating water pollutants to recover the minerals necessary and sufficient in order for the human body to function properly nourished," the researchers explain.

Notably, the engineers developed eight dissociating elements and, after extensive testing on different types of contaminated water, implemented a unique methodology that indicates what and how much of each element should be combined.

"During the purification process, no gases, odors nor toxic elements that may damage or alter the environment, human health or quality of life are generated," say the engineers.



The corporation has a pilot plant in its offices that was used to demonstrate the purification process, which uses gravity to save energy.

The residual water in the container is pumped to the reactor tank where it receives a dosing of the dissociating elements in predetermined amounts. In this phase, solid organic and inorganic matter and heavy metals are removed by precipitation and gravity.

A sludge settles at the bottom of the reactor. This is removed and examined to determine if it is suitable to use as fertiliser or to manufacture construction materials.

Subsequently, the water is conducted to a clarifier tank to remove the excess charge of dissolved elements.

Then the liquid reaches a filter to remove turbidity and is finally passed by a polishing tank that eliminates odours, colours and flavours.

The treated water is transported to a container where ozone is added to ensure its purity, and finally it is ready to drink. Indeed, the resulting liquid is fresh and odourless and has a neutral taste.

"We have done over 50 tests on different types of wastewater and all have been certified and authorized by the laboratories of the Mexican Accreditation Agency (EMA). Also, the Monterrey Institute of Technology and Higher Education (ITESM), the College of Mexico and the National Polytechnic Institute (IPN) have given their validation that the water treated with this technology meets the SSA NOM 127 standard, which indicates the parameters and

quality characteristics for vital liquid to be used for human consumption," says a Jhostoblak statement.

Moreover, the company reports that this development is protected under trade secrecy in America and will soon have the same status in Switzerland.

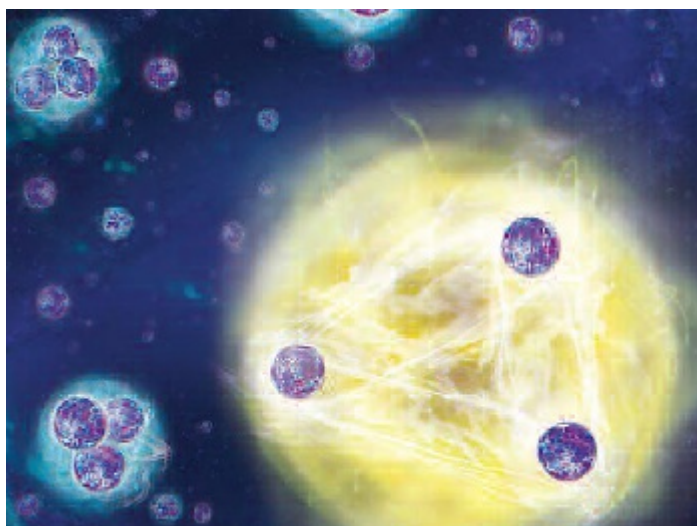
Its implementation in the market will depend on the needs of users and the issuing of new laws regarding use and consumption of water discharge.

(Source: *Phys.org*, 17 April 2015, <http://tinyurl.com/n48kzgl>.)

PHYSICISTS PROVE SURPRISING RULE OF THREES

More than 40 years after a Soviet nuclear physicist proposed an outlandish theory that trios of particles can arrange themselves in an infinite nesting-doll configuration, experimentalists have reported strong evidence that this bizarre state of matter is real.

In 1970, Vitaly Efimov was manipulating the equations of quantum mechanics in an attempt to calculate the behaviour of sets of three particles, such as the protons and neutrons that populate atomic nuclei, when he discovered a law that pertained not only to nuclear ingredients but also, under the right conditions, to any trio of particles in nature.



While most forces act between pairs, such as the north and south poles of a magnet or a planet and its sun, Efimov identified an effect that requires three components to spring into action. Together, the components form a state of matter similar to Borromean rings, an ancient symbol of three interconnected circles in which no two are directly linked.

The so-called Efimov "trimer" could consist of a trio of protons, a triatomic molecule or any other set of three particles, as long as their properties were tuned to the right values. And in a surprising flourish, this hypothetical state of matter exhibited an unheard-of feature: the ability to range in size from practically infinitesimal to infinite.

"It's a pretty wild idea," said Dr Randy Hulet, a physics professor at Rice University in Houston. "You get this infinite series of molecules."

Efimov had shown that when three particles come together, a special confluence of their forces creates the Borromean rings effect: Though one is not enough, the effects of two particles can conspire to bind a third. The nesting-doll feature, called "discrete scale invariance", arose from a symmetry in the equation describing the forces between three particles. If the particles satisfied the equation when spaced a certain distance apart, then the same particles spaced 22.7 times farther apart were also a solution. This number, called a "scaling factor", emerged from the mathematics as inexplicably as π , the ratio between a circle's circumference and diameter.

"It's like layers of an onion," Hulet said. "You see molecules at one layer. Peel the layer away, and you see that there's a molecule there, 22.7 times smaller. Every time you peel away a layer, you find another molecule."

Efimov published his theory in a Soviet journal as well as in the western publication *Physics Letters B*. At first, almost no one believed it.

"In the West, these ideas were greeted with great skepticism," said Dr Eric Braaten, a theoretical physicist at Ohio State University who was in high school when Efimov's paper appeared.

Theorists waded into the equations in search of an error. But instead, Braaten said, "they became convinced that it was true".

But even with airtight logic, the theory did not necessarily have to manifest itself in nature. "I thought it was way too weird to have any basis in reality," said Chris Greene, a physicist at Purdue University who studies "few-body" quantum systems which consist of only a few particles.

For decades, no one knew whether the theory described real matter. As researchers mulled over where to look for Efimov trimers, Efimov himself emigrated to the West and became a teaching professor at the University of Washington, where he achieved renown more for shooting a gun in class during a lesson on inelastic collisions than for his outlandish theory.

Dr Rudi Grimm and his group at the University of Innsbruck in Austria managed to create an Efimov trimer for the first time in 2006, building it from a trio of caesium atoms cooled to 10 billionths of a degree above absolute zero. It was a long-awaited triumph for Efimov, who, Grimm recalled, became very emotional when he heard the news.

But the result did not decisively prove the theory.

"With just one example, it's very difficult to tell if it's a Russian nesting doll," said Dr Cheng Chin, a professor of physics at the University of Chicago who was part of Grimm's group in 2006.

The ultimate proof would be an observation of consecutive Efimov trimers, each enlarged by a factor of 22.7. "That initiated a new race" to prove the theory, Chin said.

Eight years later, the competition to observe a series of Efimov states ended in a photo finish. "What you see is three groups, in three different countries, reporting these multiple Efimov states all within about one month," said Chin, who led one of the groups.

Grimm's team observed a second Efimov trimer made of caesium atoms, reporting the results in the 12 May 2014 edition of *Physical Review Letters*. The 2006 trimer spanned the width of 1,000 hydrogen atoms, requiring the new one to measure a full micrometre across.

Each 22.7-times larger Efimov state is also 22.7-squared times weaker, requiring the optical trap to be cooled even further to allow the new state to form.

Meanwhile, the two other groups managed to observe three consecutive Efimov states by taking advantage of a footnote in the theory. When a trimer is built from a mixture of different particles rather than from an identical set, the scaling factor of 22.7 decreases according to the particles' relative masses. In other words, nesting dolls made of atomic mixtures become closer in size, enabling more of them to be observed within the experimental window.

"We are very excited about this result," Chin said. "In the complicated molecular world, there's a new law."

The law is a geometric progression of ever-more-enormous trios of particles, spanning in a theoretically infinite sequence from the quantum scale to (if the particles are cold enough) the size of the universe and beyond.

"Although we didn't see an infinite number of them, there's pretty strong evidence when you see three in a row," Chin said.

For some, the results mark the end of an era, as well as a starting point. (Source: *QuantaMagazine.org*, 27 May 2014, <http://tinyurl.com/ojb8vwh>.)

TESLA BATTERY HERALDS THE BEGINNING OF THE END FOR FOSSIL FUELS

While wind and solar power have made great strides in recent years, with renewables now accounting for 22 per cent of electric energy generated, the issue that has held them back has been their transience. The Sun doesn't shine at night and the wind doesn't blow year-round: these are the mantras of all those opposed to the progress of renewables.

Now the renewable power billionaire Elon Musk has just blown away that final defence. On Thursday 30 April in California he introduced to the world his sleek new Powerwall, a wall-mounted energy storage unit that can hold 10 kilowatt hours (kWh) of electric energy and deliver it at an average of two kilowatts, all for US\$3,500.

That translates into an electricity price (taking into account installation costs and inverters) of around US \$500 per kWh—less than half the current cost.

This also translates into delivered energy at around six cents per kWh for the householder, meaning that a domestic system plus storage would still come out ahead of coal-fired power delivered through the conventional grid.



Amid the fanfare over the launch of the Powerwall, has Tesla's Elon Musk struck a decisive blow for renewable energy? (Source: Tesla Motors/YouTube)

What's more, Musk is going to manufacture the batteries in the United States at the "gigafactory" he is building just over the border from California in Nevada. He is not waiting for some totally new technology, but is scaling up the tried-and-tested lithium-ion battery that he is already using for his electric vehicles.

The newly launched Tesla Energy system is comprehensive, with global ramifications. The Powerwall system offering 10 kWh is targeted at domestic users. It is complemented by a commercial system termed the Powerpack, offering 100 kWh storage and a stack of 100 such units to form a 10-megawatt-hour (MWh) storage unit that can be used at the scale of small electricity grids.

Whole communities could build micro-grid power supply systems around such a 10-MWh energy storage system, fed by renewable energy generation (wind power or rooftop solar power), at costs that have just become supercompetitive.

No longer can anyone in Australia claim that renewables would be "nice" if only they came with storage. Now they do.

(Source: *TheConversation.com*, 5 May 2015, <http://tinyurl.com/lxaahso>.)

The Numerical Universe

— Order in Chaos —

Life is the result of an inherent numerical, geometric, musical and cosmological template that has pervaded the Universe since its inception. Ancient metrology systems, megaliths and even DNA have resonance with this template.

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The initial inspiration for my work was a quote attributed to one of the greatest minds ever to grace this planet, Nikola Tesla: "If you only knew the power of the 3, 6 and 9, you would have the keys to the universe." Later I began to understand Tesla's meaning through the study of modular arithmetic, which is central to Marko Rodin's vortex-based mathematics. Over time, my research began to expose primordial, numerical, geometric and musical structures inherent in our Universe.

Over time, I also began to understand that my work fits within today's renaissance of a way of perception that was natural in ancient times but seems to be foreign to modern minds. The classical quadrivium, for example, comprised the four liberal arts of number, geometry, music and cosmology. Geometry is number in space; music is number in time; and cosmology expresses number in space and time. The common factor here, of course, is number.

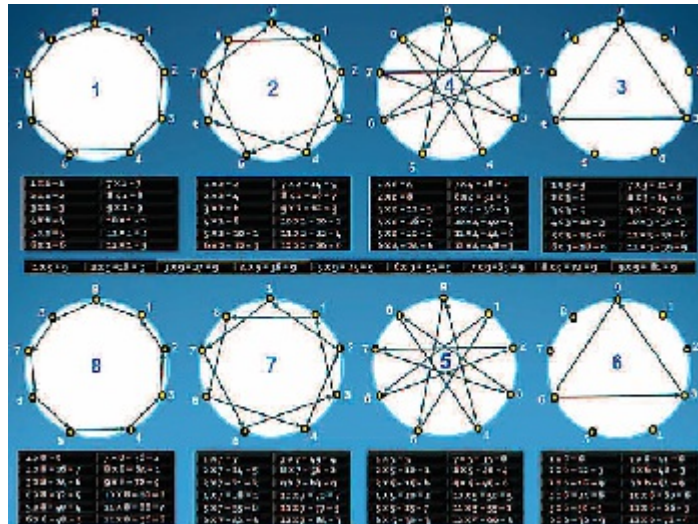
Richard Merrick wrote earlier on "The Suppression of Ancient Harmonic Science" (NEXUS vol. 16, no. 2, February-March 2009): "I discovered that harmonics philosophy had long been associated with paganism (the belief of God in nature) and that the Roman Catholic Church had worked very hard *over a period of a thousand years* to suppress it through canon law." The influence of the church was still powerful in the late 17th and 18th centuries when the scientific method was formalised and "designed to discourage the study of harmonics and its corresponding natural philosophy known as *musica universalis*".

We were educated to think of numbers as only signs pointing to quantity. That they are more complex than that, more powerful, and yield patterns essential to natural design is the revelation of a great secret in plain sight.

I have worked in financial markets for 20 years using an Harmonic Grid to time the rise and fall of global asset markets (www.marketharmony.com). The Harmonic Grid methodology applies patterns ubiquitous throughout Nature to the financial markets, bringing order from seeming chaos. In this effort, I have pieced together the work of many great men and women, and it is only by my standing upon their shoulders that this theory of everything can come to you at all. My research is currently organised into three parts. For the purposes of this article, I summarise the first two in the hope of providing insight into essential aspects of the work.

Part 1: The Numerical Structure

In this section, I show how the numbers of the decimal system come together to work in definite pairs and groups. I use modular arithmetic, exclusively using Mod 9, to uncover the inherent order that exists in everything from prime numbers to the Fibonacci sequence and, in fact, in every important natural integer sequence.



Number Pairs:

0 and 9 1 and 8 2 and 7 3 and 6 4 and 5

Family Number Groups:

147 258 369(0)

When I use Mod 9, as we see above for the multiplication tables of each of our numbers, the geometry is created by simply reducing the result to a single integer—by dividing the result by 9 and writing down the remainder.

For example, $4 \times 8 = 32$; 32 divided by 9 is 3 remainder 5, so we write $32 = 5 \text{ Mod } 9$.

There is a trick to working out the remainder very quickly. You can simply add up the numbers contained in the number; for example, 123 will be 6 Mod 9 because $1 + 2 + 3 = 6$ and 123 divided by 9 is 13 remainder 6.

Mod 9 analysis is the formal mathematical name for what is also popularly known as the calculation of digital roots.

In terms of application, I show what happens when we look at the mystery of prime numbers and their distribution across the number spectrum, long one of the greatest desires of all mathematicians to crack. It turns out that there really isn't anything to crack or at all complicated about the distribution of these iconic numbers.

The convention in mathematics has been to divide the natural numbers into two groups: those called *prime* and those called *composite*.

A prime number is recognised as a number that has factors of itself and 1 only.

A composite number is recognised as a number that has more than these two factors. As I show conclusively, this is not the whole answer at all and this error is fundamental to our misinterpretation of reality. Primes are not chaotic or random at all. We have simply failed to understand the system of number.

The first thing I did was to apply Mod 9 to the first 65,000 prime numbers and discovered the surprise, to me anyway, that results exclusively returned 1, 2, 4, 5, 7 or 8 for all prime numbers greater than or equal to five. In other words, these prime numbers exclusively made use of the 1, 4, 7 and 2, 5, 8 family number groups.

When I analysed the just scale of musical tuning, I discovered a 72-number sequence, or modulus, consisting of six octaves of 12 notes. Contemplation on this led me to arrange the numbers 1 to 72 into six columns, as laid out on the left of the following chart. 1 then marked the primes in red and converted the table into Mod 9, as shown on the right.

The prime numbers only occur in column 1 and column 5, which in Mod 9 simply repeat as 7, 4, 1 and 5, 2, 8 respectively. The prime numbers will exclusively return these remainder values infinitely.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112

By removing columns 2, 3, 4 and 6, leaving only columns 1 and 5, we are left with only primes (in red) and some "other" numbers (in black).

These "other" numbers are immediately identifiable as either products of prime numbers, for example $5 \times 7 = 35$, $5 \times 11 = 55$, $5 \times 13 = 65$, etc., or powers (exponents) of prime numbers, for example $5^2 = 25$, $5^3 = 125$, etc.

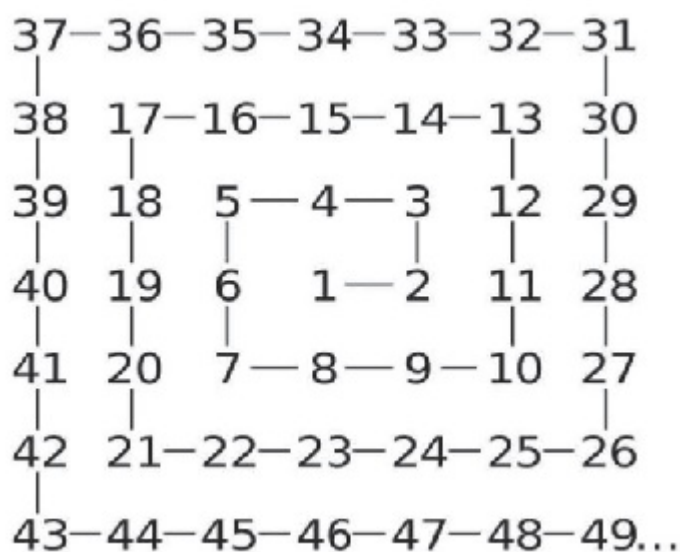
These "other" numbers are currently classified as composite numbers but, as we shall see, should rightly be reclassified as "prime composites" and thought of exclusively as part of the prime number system, not the composite number system as has been done until now.

The numbers in question are created exclusively by combinations of the prime numbers beginning with 5. They are simply self-similar, fractal iterations of the prime number sequence and all the possible combinations thereof.

To go beyond the scope of what can be fully demonstrated in this article, the combination of primes and prime composites enables and accounts for the infinite complexity of physical reality. Reality is created by an infinite fractal expansion of prime numbers that creates a grid, much like a spider that spins its web.

Visual Evidence

If we take a square number spiral and highlight only the prime numbers traditionally thought of as prime, then we arrive at something called the *Ulam spiral* where we can see that prime numbers predominantly appear on certain clear diagonals.



Ulam spiral (http://en.wikipedia.org/wiki/Ulam_spiral)

Now, if we add in the prime composites and exponents, then we see something even more defined, a display of amazing coherence and congruence.

Numerical Evidence

To cement my case regarding prime numbers and to show further that Mod 9 is useful for inferring information not otherwise obtainable, we must look to the other side of the coin and examine the "not prime" numbers or what are known as the composite numbers. Composite numbers have multiple factors, not just itself and 1 as primes do. In this composite numbers analysis, the Mod 9 sequence comes out like this:

234680135670

23467801356780

23468013456701

2346801235670

2345680134567

Can you see that these numbers are attempting to organise themselves but it's not quite happening? Once we exclude the prime composites and exponents from the composite sequence, all is revealed! Where there was no congruence or modulus before, there is now—a 12-digit repeating sequence that looks like this:

234680135670

This can be broken down into 3 x 4 segments to illustrate what I call a three-dimensional "numerical symmetry" and which illuminates the family number groups in the columns created:

2346

8013

5670

Note:

For additional information about prime and composite numbers and to view more images, go to the New Understandings web page <http://tinyurl.com/nuhcdvg>

Part 2: DNA and Amino Acids - The Game of Life Unpacked

Here I offer a fresh look at the group of 20 amino acids common to *all* biology—plant, animal and human.

I approached the puzzle of DNA by framing it as a sort of "Game of Life" and thought about it as if I were unpacking a game of *Monopoly*.

As a child playing *Monopoly*, I had to know how many pieces there were, how many houses, cards, etc., and was most especially keen to find out exactly how much money came with the game! How much could you win if you got all the money? Turning to the Game of Life, I wanted to find the smallest pieces common to the game—the "currency" of life, as it were—and count the pieces.

Our DNA is coded by codons which represent each of the amino acids. Each amino acid has a known chemical formula and we know that each element utilised has a certain number of protons and neutrons, which I have here considered to be the smallest pieces in the game.

Each of the amino acids is constructed out of a possible four bases, any three of which can define the codon for one of the amino acids. Consequently, there are $4 \times 4 \times 4 = 64$ possibilities. In addition, these four bases are organised as two pairs so that adenine (A) joins with thymine (T), and cytosine (C) joins with guanine (G).

My mind turned immediately to the 64 hexagrams of the *I Ching* and also to the ancient game of chess, played out on an 8 x 8 square. In particular, I was struck with an image of an 8 x 8 chess board with the codons distributed across it.

CODON	H	E	L	P	A	S	M	I	L	S	F	B	T	Total	Subtotal						
LEUCINE	021	072	012	072	061	402	324	26	082	281	384	00	022	020	000	1	25	16	32	1152	
PROT	041		17		20		26					11								2167	107
ETHYRANE	021	022	012	024	061	402	324	26	082	281	384	00	022	020	000	1	25	16	32	1152	
AsT	282	082	012	282	074	324	048	00	082	281	384	21	072	070	022	0	48	16	32	1152	
PROT	041		17		20		26					11								2167	107
LEU	041	042	012	042	042	042	072	50	022	020	000	0	0	0	0	0	0	0	0	1152	
ETHYRANE	021	022	012	024	061	402	324	26	082	281	384	00	022	020	000	1	25	16	32	1152	
PROT	041		17		20		26					11								2167	107
AGURINE	021	022	012	024	061	402	324	26	082	281	384	00	022	020	000	1	25	16	32	1152	
ETHYR	041		17		20		26					11								2167	107

I soon discovered that amino acids have two parts: the so-called *standard block*, which is common to all of them; and the *side chain*, which is where all the "magic" happens.

I did a numerical analysis for the standard block and the side chain individually and then a combined analysis, as we see below, to display the numbers and relationships involved. The results were astonishing—and in many ways.

In the bottom right-hand corner, you can see that the number of protons and neutrons utilised by the entire "Game of Amino Acids", and required for life to be perpetuated, totals 7920 exactly. This is interesting for so many reasons!

To begin with, 7920 British miles happens to be the mean diameter of the Earth! It really looks like plants, animals and we humans are living in just the right place, numerically speaking. What is required here is to appreciate that certain key numbers are seen to appear across widely varied contexts, often as a result of measurements made in apparently disparate units, and that this is deemed to be significant—often indicative that a process is "on track". This represents a kind of meaningful coincidence or synchronicity. It implies causal links which cut across our "reality" in ways that are not yet well understood.

From ancient metrology and the imperial system, we note that 7920 and 792 are well represented: 7920 feet = 1 league; 7920 inches = 1 furlong; 1 link = 7.92 inches.

I know that many people will immediately say "Wait: the mile is an arbitrary, man-made thing, so this must just be some sort of coincidence". I disagree completely. The origins of the foot and the mile go back deep into the mists of time; but the more we discover about them, the more it is becoming apparent that their dimensions are not arbitrary.

Even if we set this "coincidence" aside, you can see from the more detailed analysis available on my website that not a single hydrogen atom nor even a single proton or neutron can be omitted or displaced without the entire numerical, geometric and musical perfection of the structure being lost completely. To say that these numbers are random is akin to saying that *Hamlet* is the possible result of a monkey working on a typewriter.

Where else do we see 7920?

Revelation: The New Jerusalem

The New Jerusalem was a Holy City that appeared in a vision to St John on the island of Patmos, and it is described in detail in Revelation 21. The following is from John Michell's book *Dimensions of Paradise*:

". . . When the dimensions of the New Jerusalem are made commensurable as 12 furlongs and 14,400 cubits, the geometric ground plan of the City becomes visible, for 14,400 cubits = 14,400 x 1.728 = 24,883.2 feet, and 12 furlongs = 12 x 660 = 7,920 feet.

"The significance of these measures is that a circle of diameter 7,920 feet has a circumference of 24,883.2 feet.

"Thus the basic plan of the New Jerusalem is a square of 12 furlongs containing a circle of circumference 14,400 cubits.

"Measured in miles instead of feet, the wall of the New Jerusalem forms a plan of the earth, for the earth's mean diameter is some 7,920 miles and its circumference through the poles is 24,883.2 miles."

Physical and Numerical Evidence

The physical evidence for the existence of this kind of natural order is shouted out by all the megalithic sites of antiquity:

- Glastonbury: The 12 Hides of Glastonbury are 7920 feet wide, and the diameter of St Mary's Chapel, Glastonbury, is 79.2 feet.
- Stonehenge: "Immediately within the Sarsen Circle at Stonehenge stands a ring of smaller stones which has been named the Bluestone Circle. It has a diameter of 79.2 feet, showing its relationship to the Earth." (Bonnie Gaunt, *Beginnings: The Sacred Design*)
- The Great Pyramid is constructed using the numbers 11 and 7. "The fact that the Great Pyramid approximates the Squaring of the Circle with a better accuracy than the Kepler triangle is due to the use of the rational approximation of $n/2$ in the ratio of height to base." (Sacred-Geometry.es, <http://tinyurl.com/m3jabwd>)

$$11! / 7! = 11 \times 10 \times 9 \times 8 = 7920$$

Here, 11 represents the number of the Earth and 7 represents the whole tones in an octave.

Sporadic Groups

In group theory, a discipline within mathematics, a sporadic group is one of the 26 exceptional groups found in the classification of finite simple groups.

The Mathieu group M11 is 7920; $2^4 \times 3^2 \times 5 \times 11 = 7920$.

The group of amino acids that constitutes the DNA or operating system for biology is the smallest of these finite simple groups that are the product of prime numbers. Coincidence, do you think?

Conclusion

Is it really likely that Life evolved randomly from some primordial soup that was at one moment inanimate and the next animate? Examples such as those given in this article help to demonstrate that the origin of Life is the result of an inherent numerical, geometric, musical and cosmological template that pervades the created Universe and has done so since the moment of its inception. Our DNA is a resonance—see for yourself!

In another issue I take a look at Partition Theory and the Holographic Universe, where I propose a radically "new" way of looking at and understanding the Universe, one that maps well with theories discussed by leading academic scientists today. I say "new" because it seems obvious to me now that we must have had a far greater understanding of the workings of the Universe in great antiquity and that it is entirely possible that the integer partition table and my discoveries within it may have been understood perfectly at that time. Everything is cyclical, and this information was always destined to reappear. The critical relationship between number and geometry cuts to the heart of what this part of my work is about, a link that ought to be embedded in every young child.

Perhaps the greatest mathematician of all, the self-taught Ramanujan, won acclaim at the beginning of the 20th century for his discovery of certain congruences in the partition table. It is in this same table that I unveil what I think everyone who has studied this area of mathematics has been looking for: this being the way in which number can be seen to be at the root of all Art, an idea that is in alignment with the perennial philosophy, with creation seen to be the result of some ultimate master artist's work.

The partition table is proffered as the algorithm for the "machine" that inherently organises and unfolds number in a geometric way, integrating light and vibration, as spherical waves of vibration condition cubed light particles to create the design template for all of what is described by physical reality.

To access my ongoing and developing work, please go to www.newunderstandings.com

About the Author:

Anthony Morris, based in London, has been running Market Harmony Ltd, his financial market analysis company, since 1995, and services some of the top investment institutions in the world. The company owns the intellectual property for its proprietary analytical tool, the Harmonic Grid. For more information, visit <http://www.marketharmony.com>.

Since late 2010, Morris has been heavily engaged in research into the numerical and mathematical structure of the Universe, as well as in maturing the proof for the theories that support his Harmonic Grid tool.

He is in the process of writing a book, *The Numerical Universe*. For more information, visit <http://www.newunderstandings.com>

Morris is a trained clinical hypnotic consultant, registered since 2003, and a skilled personal development coach and consultant practising in Harley Street, London. He has developed a short, comprehensive course of two 90-minute talking-therapy sessions to assist in personal transformation.

He specialises in helping people suffering from depression, stress and anxiety—including those enduring the strains of the investment world—and also offers three-day bespoke retreats. For more information, go to the website <http://shineagentsofchange.com>.

George Adamski's Forgotten Photograph

The first contactee of the modern era, George Adamski took a photograph of an unidentified craft in the Mojave Desert, California, in November 1952. He didn't see the developed image until it was published in a newspaper a few days later, so there's little chance that he could have faked it.

by Warren P. Aston

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New Key to the Truth about the First UFO Contactee?

Whether they accept his claims or not, most readers of NEXUS will be familiar with the name of George Adamski, the first so-called "contactee" to openly claim contact with extraterrestrials. Five years after Kenneth Arnold and Roswell introduced UFOs to the post-World War II world, Adamski was the person who brought the idea of alien contact, here and *now*, into the public arena. His aliens were benign and human-looking enough to pass themselves off as normal businessmen. They were here, they said, to assist Earth society in ridding itself of atomic weapons and ushering in a new era of world peace and progress.

The sceptical who asked for proof were offered multiple images of craft photographed by Adamski in the skies of California—images, incidentally, that have never been proved fakes. Others also saw the strange craft and stood by their affidavits. Adamski met with royalty in Europe and claimed to have met the Pope. But mentioning his name today virtually ensures derision or, at best, heated discussion.

Over recent decades within ufology, it has become accepted practice to consider Adamski, and the other early contactees who followed, as belonging to an embarrassing era now best left alone. Case closed, in other words. Few researchers risk mentioning them. Even fewer admit to considering their stories seriously. It's true that many of Adamski's claims now seem ludicrous; but without a more nuanced evaluation that takes human nature and frailties into account, perhaps the baby has been thrown out with the proverbial bathwater.

It is time, I believe, to take a fresh look at the story of George Adamski and his contemporaries. In this article I examine an aspect of Adamski's foundational claim that he met a man claiming to be from Venus, later given the name of "Orthon", in front of six witnesses in the Mojave Desert on the afternoon of 20 November 1952.

A Re-examination

Anyone who assumes that there is nothing new to discuss about Adamski's story is quite incorrect. In making the case that Adamski did meet with the dying Pope John XXIII in the Vatican in 1963, British ufologist Timothy Good noted the witnesses, including Swiss UFO researcher and writer Lou Zinsstag, who saw Adamski being shadowed by his mysterious young men and meeting with them at his hotel. New Zealand UFO investigator and author Tony Brunt reported that the same thing happened in 1959 when Adamski toured New Zealand and Australia.

Such examples highlight events that lend credibility to Adamski's story but remain unknown to the general public and little known even within ufology. They, and others, have yet to be integrated into a comprehensive report. The definitive account has yet to be written.

Returning to 1952, the fact that one of the photographs taken on that fateful day clearly shows Orthon's flying saucer (or "bell") and has essentially been *forgotten*—by believers and sceptics alike—should encourage caution and an open mind as we take a fresh look at what happened. This particular photograph raises some profound implications.

The Setting

As recounted in his 1953 book *Flying Saucers Have Landed*, coauthored with Desmond Leslie, Adamski and a small group of friends travelled to a remote location in the desert on 20 November 1952. With him were his secretary Lucy McGinnis, Alice Wells, George Hunt Williamson and his wife Betty Jane, and Al and Betty Bailey. The group of seven arrived at the rendezvous point in the late morning.

The first photograph of the day was taken by one of the Williamsons just before the group ate a picnic lunch together. It shows Adamski sitting near one of their cars. His telescope is beside him; he would attach the camera later. The day was clear and sunny.



George Adamski photographed with his telescope soon after arrival at the site. (Source: © Michel Zirger/Agence Martienne)

Not long after, about midday, the sound of a passing aircraft alerted them to a cigar-shaped "mother ship" high overhead. Adamski had previously taken photographs of such craft, including several well-known images of them disgorging the smaller saucers. Indeed, two members of the group, George and Betty Williamson, attempted to photograph the mother ship as it manoeuvred for some 20 minutes. Some type of insignia on its side was visible through binoculars, but it was too distant to appear in the photographs taken with their simple camera.

Adamski, following his intuition, felt that a "contact" might be imminent and asked to be taken to a spot not far away. He was driven there and left alone, still in clear view of the others.

The Cameras Used on 20 November 1952

Considering the period, the group that went into the desert that day came well equipped with cameras. Adamski himself brought two. The first was an old German Ihagee camera attached to his portable six-inch telescope. This setup used pre-loaded cut film plates, and through it he had already obtained, from hundreds of attempts, some images of craft in the skies above his home near Mount Palomar. For this occasion, he came prepared with seven loaded plates. Adamski also brought with him an ordinary Kodak Brownie, a simple and very popular camera of the day that utilised roll film and had a fixed-focus lens.

Al and Betty Bailey had rented a movie camera for the occasion. George and Betty Williamson brought a still camera; their still images would later prove invaluable.

The Photographs Taken on 20 November 1952

Adamski's account relates what happened next.¹ The mother ship had almost vanished in a sudden vertical climb. Minutes after setting up his telescope and attaching the camera, Adamski saw a "flash" in the sky and immediately saw a small craft descending nearby. Sighting through the telescope viewfinder, he hurriedly snapped off his seven plates without taking the time to focus properly on the camera's ground-glass finder. The craft drifted to a stop about half a mile from him. It remained just above the ground, but only its top was now visible above the terrain.

The seven plates now exposed and safely in his jacket pocket,² Adamski then began taking photographs with his Brownie. His first impulse, naturally, was to photograph the craft, now barely visible. In fact, his first photograph appears to show the top of the craft.

It then moved again until it was completely out of view. He then took two more images to record the terrain.

It was only a short time later that Adamski suddenly noticed someone standing in the distance, motioning for him to approach. Orthon had arrived. Adamski walked over to him with the dawning realisation that the smiling long-

haired young man had arrived in the small saucer.

The story of their meeting, conversation and the strange footprints left behind—all of it witnessed by his companions—is too well known and accessible to warrant repeating here.

Instead, I want to jump ahead to something that transpired a little later that same day.

The Media Response

After Orthon's departure, the group spent several hours making plaster of Paris casts of his footprints and the strange symbols they contained. They did not leave the site until these had safely dried.

Adamski related:

George [Hunt Williamson] and Al. [Bailey] asked permission to give a report to an Arizona paper and I granted it. They decided to drive to Phoenix since that was the closest large city whose papers would probably have the greatest coverage. They asked me a number of questions to help them in their report, one of which was—"How large was the saucer?" I answered "about 20 feet" but I was still in that "daze" and did not recall actually noticing how large it was. I had noted the details and not the overall. But to substantiate their report, I gave them a couple of the holders with exposed film in them for the paper to finish and use, if they so desired.³

In any event, the Williamsons and the Baileys met with reporters of the *Phoenix Gazette*. At first the story was treated with incredulity, resulting in an invitation from the two couples for the newspaper reporters to visit the site and see the footprints themselves. Still, it was a spectacular story, guaranteed to sell papers, and an article written by reporter Len Welch appeared on the front page of the 24 November 1952 edition of the *Phoenix Gazette*. After a light-hearted introduction, the article was actually a fair summary of the events witnessed four days earlier and had only minor errors.⁴



And here the story takes us into a strange collision of worlds. The *Gazette* developed the two exposed film holders given by Adamski to the two couples.⁵ The newspaper used the better of the two images as the lead image in the article, adding a photograph of its own that showed the two couples looking at the two negatives.

In Support of Adamski

What almost everyone has overlooked is the very simple fact that the image supports Adamski's account. It is a close-up daytime photograph clearly showing a well-defined, structured craft at an oblique angle slightly above the camera. The perspective seems consistent with a craft in descent mode. The three-ball landing gear is clearly visible.

That it is slightly unfocused fits Adamski's description of how he made the exposures and does not detract from the

fact that the photograph—even by today's standards—is impressive.



Enlargement of George Adamski's photograph taken from the front page of the Phoenix Gazette of 24 November 1952.

How do we account for this photograph? How does a simple con-man, as Adamski's detractors claim he was, produce such an image? He took it outdoors in front of six witnesses. There was no opportunity for him to know what he had managed to capture with his camera or even if he had captured anything at all. There was no chance for him to pull off some kind of manipulation during processing, even if that was possible in that pre-digital period. He himself never saw the photograph until it appeared on the newspaper's front page.

Despite staring the UFO community and the sceptics in the face, this image has essentially been ignored even by the few commentators who have attempted to deal with the first "contactee".

As researchers re-evaluate that early period and its personalities with newly obtained documentation, these hard facts about Adamski and his original claims have to be faced, not ignored.

The inescapable facts that this photograph was made in front of witnesses, was independently developed by a newspaper and clearly shows a flying saucer in flight surely require us to reconsider the claims of George Adamski and those associated with him

Author's Note:

Material for this article, including images, is courtesy of Michel Zirger and Maurizio Martinelli whose e-book *Mystical Journey: The Incredible Life of George Hunt Williamson - Itinerary of a Privileged UFO Witness* is soon to be published in English by Verdechiaro Edizioni (translated, revised and expanded by Michel Zirger; edited by Warren P Aston).

The book was first published in Italian in 2013 by Verdechiaro Edizioni under the title *Extraterrestri: Il contatto e già avvenuto* ("Extraterrestrials: The Contact Has Already Happened").

About the Author:

Warren P. Aston has been an independent UFO researcher and writer for 35 years. Based in Brisbane, Australia, he travels widely overseas in pursuing cases. He has spoken at UFO symposia in Australia and the USA.

His article "Amicizia: Alien Encounters in Italy" was published in NEXUS 17/05. Aston edited and published the English edition of Stefano Breccia's book *50 Years of Amicizia* (available at <http://www.createspace.com>; see review in 20/06).

Among his other fields of interest are cryptozoology, Mesoamerican prehistory and exotheology.

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Endnotes

1. The original account appeared in Desmond Leslie and George Adamski, *Flying Saucers Have Landed*, T. Werner Laurie, London, 1953, pp. 133-157.
2. Desmond Leslie reported that he'd examined the other plates at Adamski's home and that, although they appeared black, the silhouette of the saucer could be seen when the plates were held up against strong light.
3. Leslie and Adamski, *op. cit.*, pp. 155-156; emphasis added.
4. Another newspaper, the *Blade-Tribune* of Oceanside, California, soon afterwards conducted its own interviews and published a story. It included images, but, as the paper did not have the two plates that the *Phoenix Gazette* accessed, it did not publish any images taken of the craft.
5. The two photographic plates developed by the *Phoenix Gazette* were apparently kept by George Hunt Williamson, who subsequently lost them, most probably during his 1956 move from Arizona, USA, to Peru.



AUSTRALIA'S STONEHENGE

Frederic Slater's Legacy

by Steven and Evan Strong © May 2015

The rediscovery of a set of sacred mounds—one of which featured an imposing array of 188 standing stones before the arrangement was destroyed—along with research notes and a map of the site (from which the image overleaf was created) compiled by one of the most respected academics in the country should be enough to rewrite huge slabs of Australian and world prehistory. However, before doing so, some time must be devoted to determining what to make of the rather enigmatic catalyst who proclaimed to all and sundry that this site was at least the equal of Stonehenge.

Frederic Slater (c. 1880-1947) was an Australian journalist, scholar and Egyptologist. His status fluctuated from being one of the main academic spokesmen in the country to being forced into anonymity, with an official embargo placed on any word or paper that he penned. The attack on Slater seems to have begun in earnest in the late 1930s and continued until his death.

Despite official rumours and omissions to the contrary, we can now confirm that in the 1930s Frederic Slater was the President of the Australian Archaeological and Education Research Society of Australia, and that his research, as radical and sensational as it was, has been recovered.

As far as we can determine, there is no obituary in any newspaper eulogising him and his extensive research, nor one official record of his theories or on-site activities. Yet when scanning through copies of newspapers published in the 1930s, his name appears time after time and always in a favourable light. Could it be that his sudden fall from grace in academic circles wasn't due to a defect in his character or errors in his research, but was simply because he was investigating one site in particular which called into question, if not contradicted, all the assumptions and theories on Original prehistory and human development?

Frederic Slater considered this Original stone arrangement, which he and a colleague were investigating throughout 1939, to be "the Stonehenge of Australia". This impressive and complex sandstone arrangement, its location presumed to have been lost since 1940, was much more than a collection of rocks, signs and symbols set atop a mound. In his notes, Slater wrote that "the mound is one of the oldest, I should say *the* oldest, forms of temples in the world, and dates back to the advent of first man".

Not only was the mound the first temple, the narrative and wisdom it chronicled was as profound as it was sublime—so much so that Slater claimed that it formed "the basis of all knowledge, all science, all history and all forms of writing".

These are extremely bold claims to have made. To suggest that the very first language was spoken and recorded in stone in Australia carries with it many inconvenient historical implications. Modern humanity is assumed to have had its genesis in Africa. We are told that a few restless, inquisitive souls set foot outside African soil some 60,000 years ago and spread their culture and genes. In this theoretical construct, there is no room for Australia to be anything other than an afterthought, merely an African colony peopled by mariners who surely spoke before setting sail for Australia.

Original History Destroyed

While Slater's stance was unpopular, his research was meticulous and his methodology was sound. More to the point, such was the strength of Slater's case for this arrangement's representation of the First Language that, in 1940, a state government Lands Department officer and other officials approached the farmer on whose property

the standing stones were located and threatened to confiscate his land.



Computer-generated image created by Richard Patterson, based on Frederic Slater's map of 188 standing stones atop a mound. (Source: Richard Patterson)

The threatened landholder was openly sympathetic to the archaeological surveys being done, but he realised that while the stones stood he would lose his land, income and livelihood. Within days of the threat, the farmer disclaimed the site and then left the mounds alone.

Slater had lost his proof, and he made no other supporting public statement. The whole unpleasant episode was expunged from the public arena, and Slater's correspondence was apparently lost or destroyed.

And so this historical vacuum remained . . . until last year when teacher Richard Patterson was rummaging through some discarded files in the back room of his local historical society. Among the accumulation of papers and documents, he found Slater's letters to his on-field colleague. In late 2014, Richard contacted us, and so the unravelling began.

The First Language

The First Sacred Language which Slater claimed to have deciphered is very complex, multilayered and, at his last count of "28,000 words", far more diverse and complicated than what could be assumed in relation to the very first language spoken on Earth. We are of the belief that this complex language spread throughout most of the coastal regions of Australia, unified under Southern Law.

While historical and linguistic texts propose that the first tongue was crude and was limited to representing the most basic emotions and objects before slowly increasing in number and sophistication, here a symbol can have four different meanings. This formalised method of communication was made up of numbers, hand signs, rock markings, shaped stones, elements, trees, letter sounds, animal shapes, etc., the intricate combination of all manner of apparently unrelated themes and disciplines creating a seamless blend into one formal script. This is in stark contrast to the expected rudimentary linguistic starting point, and calls into question many assumptions about human ascension and development.

Leaving aside that reports from the Original Elders of Lore are in accord with the integrity of Slater's claims, the logistics, technology and labour involved in creating these mounds were unparalleled in this country— and are deserving of further on-site archaeological investigations.

Having viewed one of the mounds from a discreet distance, we have to conclude that with its make-up of hundreds of tonnes of sand, clay and sandstone, deposited on top of a flat, swampy plain, it is not part of the local geology.

According to Slater and his coworker, the closest deposit of sandstone was more than 20 kilometres (12 miles) away. The problem is, until the arrival of British settlers in Australia, no one in this country had a metal chisel, pulley, wheel or wheelbarrow to be able to cut and move the rocks a distance of 20 kilometres. As far as we know, there are no other examples in Australia of an arranged stone weighing over a tonne.

Quite simply, this Original construction doesn't fit into any academic book or curriculum.

The Mystery of Life

What also unsettles the academic climate is the content of the narrative contained within the stone arrangement on this mound, which Slater called The Mystery of Life. On the southern edge of this larger mound, the opening placement of stones, which looks very much like a medicine wheel, was interpreted by Slater to read "Guided by truth, man came to Earth through darkness from light of life that shines far off". This extraterrestrial theme of somebody or some being coming to this planet from "far off" is repeated throughout these constructions, extolling

that "Truth was brought out on wings to Earth" and "the Divine Light from afar to the Earth brings the soul to man".

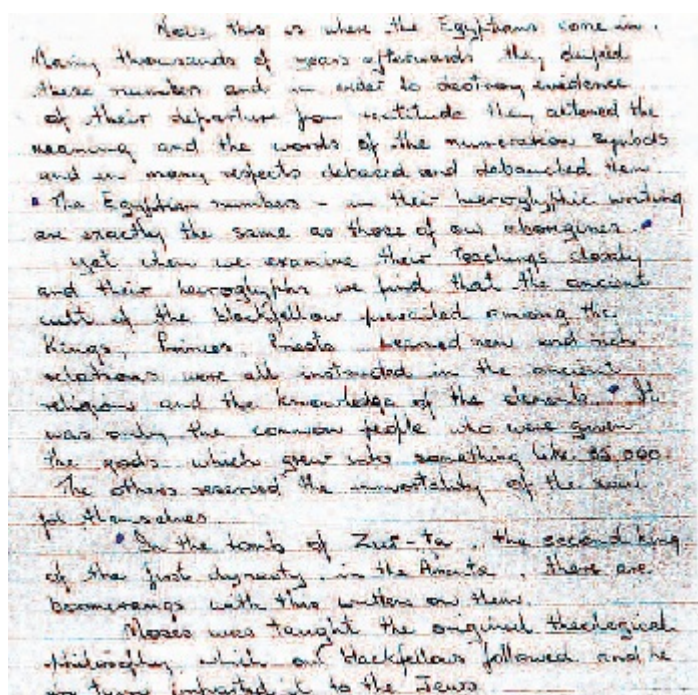
It is a site without parallel on the East Coast of Australia on so many levels. The means of construction, the significance, content, sacredness and real possibility that these arrangements chronicle the first time that modern humans devised a formal means of expressing words and thoughts are but some of the issues that need to be investigated.

In what only adds to the intrigue, Slater was adamant that the ancient Egyptians were not only present (and most probably were assisting in the transport of sandstone and fill) but came in homage and reverence. He asserted that "there is no mistaking the fact that the Aborigines...gave not only to the Egyptians their knowledge and their foundation of hieroglyphics and their philosophy, but formulated the basis of all knowledge in the beginning, now and to come".

Initial Observations

On-site archaeological findings are still in the process of being compiled and analysed, but a few simple observations can be offered already. The chances are extremely high that this stone arrangement is an actual account of the First Sacred Language and conveys historical details as well as a prophecy of times soon to come.

The first mound is definitely artificial: its shape is too symmetrical, its placement on a flat, swampy plain is dramatically at odds with the surrounding topography, and the sand, clay and sandstone that make up its construction are inconsistent with the immediate geology. Throw into this mix the confirmation from Original Elders and Custodians versed in Original Lore and history that this is one of the most sacred sites in Australia, if not *the* most sacred site, and we begin to see why Slater was so adamant that this is "Australia's Stonehenge".



A page from Frederic Slater's notes, referring to ancient Aborigines' influence on the Egyptians. (Source Richard Patterson)

Frederic Slater's opinions and our research into them are open to debate and alternative explanations. But with the bounty of archaeological discoveries coming to light and the Elders' confirmation of Slater's translation, these mounds, with their standing stones just waiting to be returned to their placements, comprise probably the most sacred archaeological site in Australia. No other explanation is currently on offer.

About the Authors:

Steven Strong is a secondary school teacher with a background in archaeology and education. He was involved in the formation of a Graduate Diploma of Aboriginal Education for the NSW Department of Education, writing units on Traditional Law and Contemporary History. He also coauthored the highly successful "Aboriginal Australia: A Language and Cultural Kit".

Evan Strong has a background in sociology and psychology. This father-and-son team has spent many years learning and living with the Bundjalung Language Confederation and Gumilaroi people of northern New South Wales. They have written five books that rewrite the history of Australia and the world. For more information or to contact the authors, go to the website <http://forgottenorigin.com>.

Editor's Note:

All quotes in this article are from Frederic Slater's personal notes. Steven and Evan Strong are scheduled speakers at the 2015 NEXUS Conference, along with Erich von Daniken and David Hatcher Childress who also address issues of human origins.

'FLYING CITY' WITNESSED BY HUNDREDS OF VILLAGERS IN NIGERIA

Over the years, there have been many fascinating stories of extremely strange beings suddenly appearing from the constellations around planet Earth with completely unexplainable objects that are faster than any human-piloted fighter jets could ever travel.

One such "bizarre" image appeared in one of the villages in Bauchi state, Nigeria. The villagers narrated this strange sighting to reporters and researchers Greg Odogwu and Mukhtar Lawal Suleiman. The location was a border village called Dulali, in Lanzai South Ward in the Darazo local government area of Bauchi state.

Saidu Meshai Dulali, a very popular hot tea brewer in the village, had just finished his morning prayer at the local mosque and was stoking up the stove for his day's work. Suddenly, Saidu became aware of a pervading bright light enveloping the atmosphere and he thought that the heavens were falling on the village. As he looked up, he saw the most fascinating view of his 40 years of existence.



According to Saidu:

"There appeared a wide, large mass of something that looked like a cloud from nowhere and it was flying slowly over the village just at the height of an average tree.

"The cloud was transparent and I saw beautiful tall buildings inside it, with tarred roads and cars. It was like a flying city. And from it I could hear the sound of machines making noise, just as you would hear at Ashaka cement factory."

If Saidu had been the only witness to this extraordinary experience, it would have been impossible to take his personal testimony as fact. But it was then discovered after he made his statement that the "flying city" was witnessed by almost all of the villagers in the area at the time—in fact, by hundreds of them, the Chief Imam of the sole village mosque included. Children and adults all saw the "city" and corroborated the story.

A farmer, Dauda Mohammed, explained how he also saw the "city" from the open field where he went to pick up an implement that he'd left the day before. Dauda stated that when he looked up and saw how the floating object was moving slowly around the village, he was very surprised but not scared. He said that he saw the colour of the buildings inside what initially appeared like a moving, round and wide-shaped massive cloud.

Ibrahim, a boy about 10 years of age, pointed to the top of a tree and said that a UFO moved into the tree and came out the other side but the tree was not pushed down.

A Technological Phenomenon

The above descriptions by these villagers aptly fall into the category of the sighting of an unidentified flying object or UFO, popularly called a "flying saucer". This kind of paranormal phenomenon is widely known and reported in the western world but is never heard or talked about in this part of the world. Was this smaller UFO part of the "floating city" in the sky?

Technically, a UFO is classed as an unusual apparent anomaly in the sky that is not readily identifiable to the observer on the ground as any known object, but in modern popular culture the "UFO" term has generally become synonymous with alien beings' spacecraft.

Some researchers have argued that because these unusual objects appear to be a technological and not a natural phenomenon, appear to display flight characteristics and come in different shapes and sizes which are completely unknown compared with any conventional technology, this means that they must not be from planet Earth and are from out of this world!

Religious and Cultural Factors

Intriguingly, the UFO seen by many in Dulali has revealed to the reporters, as UFO researchers, the influence of religious and sociocultural factors in this unique phenomenon. This is because what ordinarily raises fear and conspiracy theories in the western world, where the UFO occurrence is predominant, is viewed in a positive light over here.

The villagers were of the consensus that what they had witnessed was actually an act of their God, for He alone is capable of making anything happen like this.

According to Yau Kaugama, a Lanzai Ward political leader who accompanied the two reporters to the village:

"We believe it is a sign that in time to come something great will come out of that small village. Something like a great invention, that will affect the life of mankind."

Mallam Shehu Liman, the Chief Imam of the village, confirmed the general consensus of the villagers and specifically affirmed:

"We believe that maybe Allah used those sightings to open our eyes to see how Jinns [spirits] live in their own world. Allah is great, and there is nothing He cannot do on earth.

"Exactly two weeks after appearing in our village, that flying object visited again at the same exact time, and stayed in the sky roving around the village for almost an hour before it went away. We are happy because it shows we are [a] special village; other towns around were not even given that privilege."

When questioned as to whether the village had made a formal complaint or report to the local authorities, the Imam said that they did not see the need to report this event, as the flying object had neither harmed nor injured anyone and they were all convinced that it was a positive visitation.

When the villagers of Dulali were asked whether they had seen any living beings inside the UFO, they were all certain that they had seen no living being in that apparent "city" in the sky.

In the western world, many witnesses have described in detail how a UFO, usually a much smaller craft, landed in a remote area or farm and some creatures actually came out from it. There are some witnesses who have claimed to have been abducted by these alien beings and either taken on board the craft for a ride or taken to the larger UFO hovering in Earth's orbit (the "mother ship"). Some have even claimed to have been taken to the actual habitat of the alien beings.

When contacted, the chairman of the Darazo local government area at the time of the sighting, the Hon. Sabo Bako Sade, said that he was aware of the paranormal visitation at Lanzai and would have carried out a thorough investigation but at the time of the incident he was occupied by the activities of marauding armed robbers who were raiding police stations and robbing banks in his local government area. Or was this just an excuse and he had been warned to keep quiet?

He insisted that this type of supernatural occurrence had never before occurred in Darazo, and had never again been reported after the Dulali incidents. He said:

"When I heard the news I first thought it was a practical joke, or a wild rumour circulated by people, because at that time we were under attack by hoodlums [and] we could not ascertain whether they were Boko Haram or just

armed robbers. We were under immense pressure. But the supernatural sighting in Dulali was a special one, a once in a lifetime experience, even for me as a politician. I wanted to set up a thorough investigative committee on the incident but my hands were tied at that time."

(Source: Edited from a posting at UFOInternationalProject.com, 20 April 2015, <http://tinyurl.com/llnmcaj>; based on an article by Greg Odogwu and Mukhtar Lawal Suleiman, published in the Peoples Daily newspaper, Lagos, Nigeria, on 19 April 2012)

BOOKS

Reviewed by Ruth Parnell

TRANSFORMATION:

John of God

by Gabriella Francisco

Gabriella Francisco, Cork, Ireland, 2013

ISBN 978-0-9575600-0-0 (247pp tpb)

Available: franciscogabriella@yahoo.ie

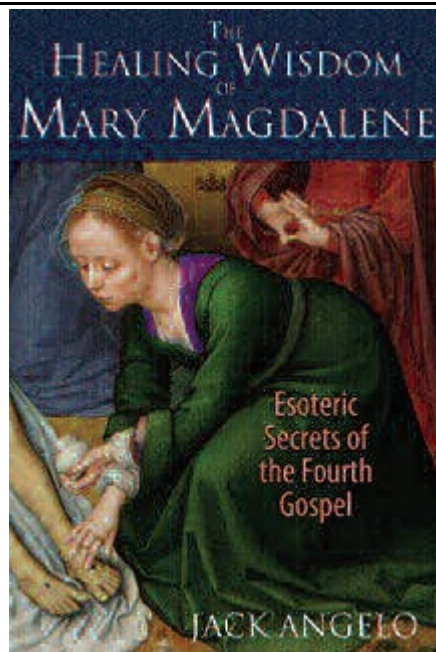
Amazon.co.uk

Amazon.com

Many readers will recall our article in 5/02 on Joao de Deus, or John of God, who established a healing centre in Abadiania, Brazil, called Casa de Dom Inacio. Assisted by the energy of a group of meditators, this extraordinary medium heals through God and the intercession of spiritual entities such as St Ignatius, St Francis and other key figures from the spiritual realm including doctors who desire to continue their roles. As illness is spiritual in origin, healing begins at the spiritual source.

Thousands of people travel to the Casa every week, and one of these was Irish poet Gabriella Francisco who in 2011 spent 11 months there. Having received a profound, blissful, loving healing, Francisco spoke to many people who experienced their own incredible healings from all sorts of conditions including blindness, cancers, Lyme disease, addictions, depression, autoimmune diseases and accidents. Her interviews are compelling, and her book, which includes many photographs, received the blessing of the entities of light.

To visit the Casa requires a firm commitment, as the healing centre is not easily accessible, and Francisco gives practical pointers to consider if you want to travel on this path. This is an inspiring journey into truth, forgiveness, love and light.



THE HEALING WISDOM OF MARY MAGDALENE

by Jack Angelo

Bear & Company, VT, USA, 2015

ISBN 978-1-59143-199-2 (244pp tpb)

Avail: BearandCompanyBooks.com

Amazon.co.uk
www.jackangelo.net

During a visit to Sainte-Baume cave in Provence, France, in 1988, Jack Angelo was surprised to receive a vision and a message from Maryam (the Aramaic name of Mary Magdalene), who according to legend spent her final years in this very place. Angelo, a subtle energy healer (*Self-Healing with Breathwork*, NEXUS 22/02), then embarked on a quest to uncover Maryam's message that we're all "Christs in the making". Looking behind the words, as she advised, and investigating non-canonical texts, he came to realise that the fourth gospel can be attributed to Maryam, not John, but her authorship as head disciple was overturned by patriarchal members of the Jesus movement.

Maryam was an equal partner with Jesus in a union of female and male energies at one with the Source, says Angelo. Her chief teaching concerned seeing with the heart—essential for healing our relationship with self as well as with humanity and planet Earth. Angelo relates the wisdom of Jesus told through Maryam via the seven signs (or "miracles") presented in this fourth gospel—wisdom that ultimately can lead to personal transformation and conscious, heart-centred alignment with the sacred soul, the Divine, of which we're all a part. These timeless teachings offer a way to heal and restore balance in an all-too-fragmented modern world.

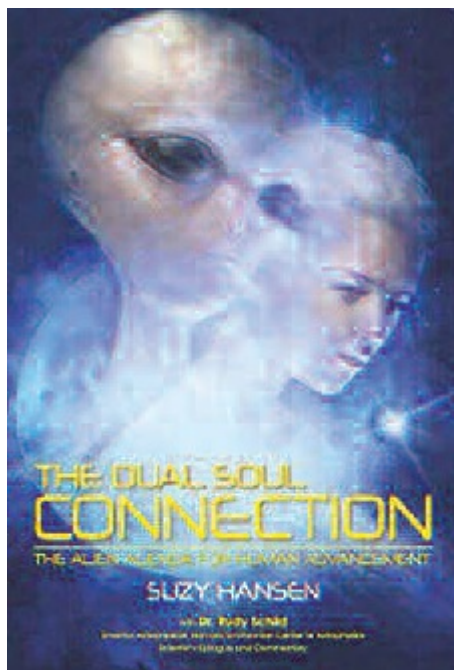
7 REASONS TO BELIEVE IN THE AFTERLIFE

by Jean Jacques Charbonier, MD
Inner Traditions, Rochester, VT, USA, 2015
(first published in French in 2012)
ISBN 978-1-62055-380-0 (147pp tpb)
Available: www.InnerTraditions.com

Yet more evidence that consciousness survives death comes from French anaesthetist and intensive care physician Jean Jacques Charbonier, MD, who for over 25 years has been gathering evidence for the afterlife and spreading the word via lectures, interviews and books, *7 Reasons to Believe in the Afterlife* being his ninth. Many of his accounts are from patients who suffered cardiac arrest but were resuscitated. Indeed, what inspired him to explore the neardeath experience (NDE) (he prefers the term "experience of provisional death" or EPD) was when he was trying to resuscitate an accident victim and saw the liberation of the spirit at the moment of death.

Among Dr Charbonier's "seven reasons" are: according to polls, at least 60 million people have had an afterlife experience during cardiac arrest and returned from clinical death to report it; there are cases of induced cerebral death during brain surgery where patients have recovered to relate significant details of their operations; people on the threshold of death often seem to communicate with deceased loved ones ahead of their passing; and the deceased have been able to pass on signs, whether by stopping clocks or leaving messages via telephones and recording equipment.

Dr Charbonier also responds to his "materialistic" detractors in this welcome addition to the afterlife literature, which includes an article by physicist Emmanuel Ransford on "psychomatter" and the hereafter.



THE DUAL SOUL CONNECTION
by Suzy Hansen with Dr Rudy Schild
Skylight Books, New Zealand, 2014
ISBN 978-0-473-29564-6 (356pp tpb)
Avail: www.communicatorlink.com

New Zealander Suzy Hansen, a natural intuitive, has a history of interaction with alien beings going back to her childhood in the 1950s—60s. Her memory of some of these interactions was enhanced from 2005 when she finally decided to undergo regressive hypnosis.

Hansen has had contact primarily with Grey beings but also with a Mantis, part of the so-called Universal Governing Body which has revved up its interest in humanity since the birth of the atomic age. Hansen discovered that she herself has human and alien souls, as do many among us today, some on different levels of a four-generational "wave" but all working ultimately towards our advancement.

In Hansen's book we read of UFO and missing-time experiences, visits to mother ships and undersea bases, telepathic contact, mass meetings of dual-soul humans, visions of Earth disasters and teachings of higher-order philosophies. Hansen's revelations are extraordinary in the alien-contact ufology field, and are supported by astrophysicist Dr Rudy Schild in his comments and epilogue.

The founder in 2000 of the UFOCUS New Zealand research network, Hansen lobbied in 2009-10 for the release of NZ MoD UFO files which happened the following year.

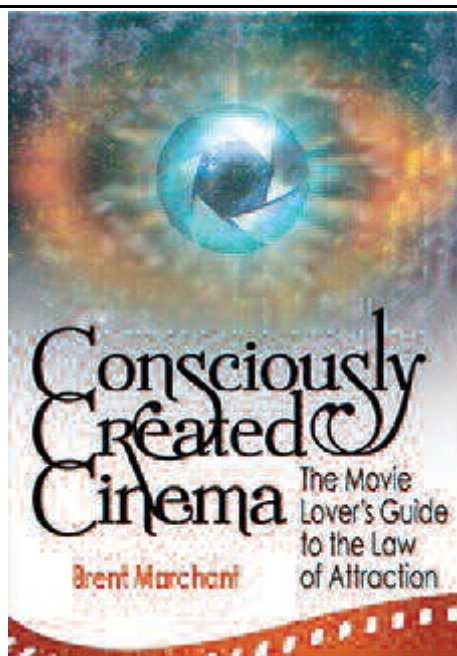
TEMENOS TOUCH
by Evelyn M. Brodie
Waterside Press, Hampshire, UK, 2015
ISBN 978-1-941768-58-7 (203pp tpb)
Avail: www.balanceandpurpose.co.uk

A change of course led Evelyn Brodie to investigate experiential healing practices, altered states of consciousness and frontier sciences. She went on to develop a technique called Temenos Touch ("temenos" being a protected space) that's based on modalities in line with Dr Larry Dossey's Era II body-mind and Era III non-local healing definitions.

Brodie's approach includes Reiki, shamanism, craniosacral therapy, tantra, out-of-body journeying, rebirthing, constellations therapy and five rhythms movement, and it has been influenced by a number of wise teachers. Key to her work is tapping into the universal, omnipresent, energy "inforealm", and she aims to bridge the psychosomatic and nonlocal healing worlds with those of the scientific and medical. She's also careful to point out some of the pitfalls in healer-client relationships.

In *Temenos Touch*, Brodie explores quantum physics and neurobiology, the holonomic brain and the left-right hemisphere reconnection. She considers belief systems, past lives, soul retrievals, "psychic dagger" clearing, traditions of working with ancestors and healing rituals. She also has advice on overcoming traumas and sexual wounding.

Brodie is at the forefront of the new healing paradigm that links up with the inforealm in truth, integrity and authenticity. Her book offers us a way of becoming reacquainted with the beauty and joy of life.



CONSCIOUSLY CREATED CINEMA
by Brent Marchant
Brent Marchant, Chicago, USA, 2014
ISBN 978-1-495976643 (297pp tpb)
Available: www.BrentMarchant.com
<http://tinyurl.com/kvooovl>
Amazon

Expanding on the themes he presented in his 2007 book *Get the Picture* (recently updated), film buff and metaphysician Brent Marchant has produced another gem with *Consciously Created Cinema*. At the heart of his work is the notion that we "create our own reality in conjunction with All That Is". This is ancient esoteric wisdom that's also known as "the law of attraction", popularised in the film *The Secret*.

Marchant sees film as a storytelling medium that can tap into these conscious-creation principles. Here he reiterates concepts of belief, choice, fear and courage, connection and change, and introduces new ones such as probabilities, perspective, faith, integrity, power, redemption, transformation and transcendence.

The films he's chosen to highlight these ideas were made in 2006-12 and include dramas, documentaries, biopics, comedies and sci-fi films, but space precludes a mention of any specific ones here. The reader needs to grasp Marchant's narrative throughout, not just go straight to the film critiques (however tempting).

The chapter on "Misfires" shows that even top directors and writers can miss the mark—but can redeem themselves, just as we all can recover from failure and move on. Even if you haven't seen the films, you'll be instructed and inspired by Marchant's life-affirming perspectives.

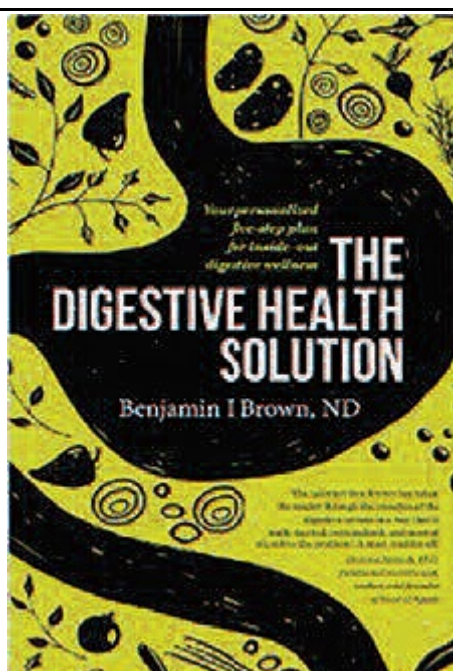
NATURAL TREATMENTS FOR LYME COINFECTIONS
by Stephen Harrod Buhner
Healing Arts Press, VT, USA, 2015
ISBN 978-1-62055-258-2 (440pp tpb)
Available: www.HealingArtsPress.com

Lyme disease and its coinfections are becoming very common, made more so by the destruction of natural habitats and the entry of human populations into these areas where tick carriers must find new hosts to infect. The pathogens that are harboured in ticks are synergistic and are evolving and finding new ways to resist any means to control them.

Herbalist Stephen Harrod Buhner (22/01, 21/04-05, 12/05) wrote his first book on Lyme disease in 2005 (soon to be published in a revised edition), and followed up in 2013 with a book detailing the specific coinfections caused by *Bartonella* and *Mycoplasma* infections. His new companion title focuses on infections from the *Babesia* protozoa and the *Anaplasma* and *Ehrlichia* bacteria—organisms which are often misdiagnosed by doctors. These pathogens create a cascade of cytokines—the cell-signalling molecules released by damaged cells, immune and glial cells—and promote their own life cycles in the process.

In his detailed book, Buhner explains the dynamics and symptoms of coinfection as well as natural healing protocols utilising a range of herbal treatments, many from plants that themselves are "invasives". He includes a huge bibliography as well as a *materia medica* of specific herbs used in Lyme coinfection treatment.

A must-read for health practitioners.



THE DIGESTIVE HEALTH SOLUTION
by Benjamin I. Brown, ND
Exisle Publishing, Aust, NZ, UK, 2015
ISBN 978-1-921966-68-2 (230pp tpb)
Available: exislepublishing.com.au
www.TheDigestiveHealthSolution.com

A bad case of traveller's diarrhoea prompted naturopathic doctor Benjamin Brown to research and write about digestive health. He'd been practising integrative medicine for years, so the task was a natural fit and helped him restore his own health. In his book, Dr Brown takes a big-picture approach to treating symptoms and conditions that affect millions of people and provides workable techniques for recovering good health—and keeping it.

First up, Dr Brown discusses the epidemic in digestive illnesses, including irritable bowel syndrome, and explains what might be going on in the digestive system with a host of problems including constipation, diarrhoea, bloating, hypersensitivity, inflammation, pain, fatigue, anxiety, insomnia, depression, behavioural disorders and more. He also looks into emotions and their role in digestive issues, and vice versa.

Next, Dr Brown explains how to balance intestinal bacteria, boost digestion, clear constipation, rewire the nerves of the gut-brain axis and reset the digestive clock. He has guidance encompassing toxic sugars, food sensitivities, gluten intolerance, pro- and prebiotics, the mind-body connection and natural supplements. He also presents a five-step plan for achieving good digestive health.

With many research studies to back up his advice, Dr Brown promotes tried-and-tested solutions for transforming ill

health into wellness.



AEROTOXIC SYNDROME

by John Hoyte

Pilot Press, London, UK, 2014

ISBN 978-0-9929508-0-4 (253pp tpb)

Available: www.pilotpress.net

So-called "fume events" have been occurring in pressurised aircraft since the 1960s and are the frequent result of "bleed" air entering the cabin and cockpit via jet engines that are in close proximity to vaporised engine oil components particularly when seals have failed. Jet engine oil contains toxic additives, the most deleterious being organophosphates which are known neurotoxins.

Pilot John Hoyte first became ill in 1990 when flying the BAe 146 aircraft, notorious for fume events (see 17/02). By the time he was forced to retire in 2005, he still didn't know the cause of his serious, chronic, ill health. In 2006, he learned the name of his condition: aerotoxic syndrome. In 2007, he founded the Aerotoxic Association (www.aerotoxic.org) to draw attention to this widespread problem, to campaign for safer flying conditions and to lobby the aviation industry to make aircraft air safe.

Hoyte's book contains disturbing testimony from pilots, cabin crew and passengers who have experienced debilitating and long-term symptoms from breathing contaminated air. These symptoms include cognitive dysfunction, memory loss, dizziness, nausea, headaches, muscle fatigue and more, and for airline crew they can mean loss of jobs and payouts.

He also presents evidence from pioneering researchers who are trying to have these issues taken seriously.

Hoyte offers recommendations for cleaning up this scourge and for stopping the cover-up by the airline industry, doctors, regulators and legislators. An alarming expose.

A DEEPER PERSPECTIVE ON ALZHEIMER'S AND OTHER DEMENTIAS

by Megan Carnarius, RN, NHA, LMT

Findhorn Press, Forres, UK, 2015

ISBN 978-1-84409-662-6 (186pp tpb)

Available: www.findhornpress.com

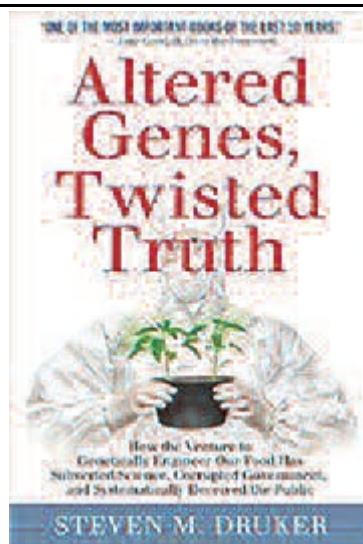
www.brumbysunstate.com.au

Alzheimer's disease and other dementias are on the rise, yet few family members or caregivers understand the progression of the disease or how to respond to what's going on when their loved ones have memory loss and gradually lose their independence. A nurse specialising in Alzheimer's and with 25 years' experience in running memory care facilities, Megan Carnarius has written an insightful book for family and professional caregivers.

She details the stages of dementia, in which elders lose their adult learning and then their adolescent, childhood and infant learning and enter the terminal phase. Many sufferers at various stages are already attending to deep aspects of the self on the spiritual level. Instead of seeing the process as one of hopeless degradation, we need to see that it provides blessings and to allow our loved ones to shape their soul's journey in their own way.

Carnarius has a practical wisdom that helps us come to terms with the disease, with changing roles, with the almost insurmountable challenges, and with letting go. Caregivers need to keep a sense of humour, accept the circumstances and attend to their own health and wellbeing.

Shining a bright light on the final path, Carnarius expresses the love, compassion, honour and humanity that we can all take on board. An important book for our times.



ALTERED GENES,
TWISTED TRUTH
by Steven M. Druker
Clear River Press, Utah, USA, 2015
ISBN 978-0-9856169-0-8 (511pp tpb)
Avail: alteredgenestwistedtruth.com

The truth about genetically engineered (GE) foods has been twisted by scientists, corporations, the government and its regulators for decades. Public interest attorney Steven Druker, an accidental anti-GE activist, began to delve into the subject in the mid-1990s. He soon founded the Alliance for Bio-Integrity to organise a lawsuit against the US FDA, and received help from the public-interest group International Center for Technology Assessment with its experience in litigation. The 1998 lawsuit forced the FDA to hand over controversial documents.

Druker weaves an engrossing narrative through his heavily referenced book. The foreword is by naturalist Dr Jane Goodall, who describes her own awakening to the "shocking corruption of the life forms of the planet" with the introduction of new genes into crops. Among the many topics are the politicisation of science, the deadly GE tryptophan epidemic, fraud by food safety officials, erosion of environmental protection, media cover-ups, data exposing GE crops' safety issues, and the trend for scientists to become spin doctors. Yet many scientists have been challenging this twisted system on their own for years, and some of them are featured here.

Not resorting to all gloom and doom, Druker advocates ditching GE and adopting sensible, sustainable farming. His book has serious clout.

FOOD AND IDENTITY IN ENGLAND, 1540-1640
by Paul S. Lloyd
Bloomsbury Academic, London, 2015
ISBN 978-1-4725-1443-1 (245pp hc)
Available: www.bloomsbury.com

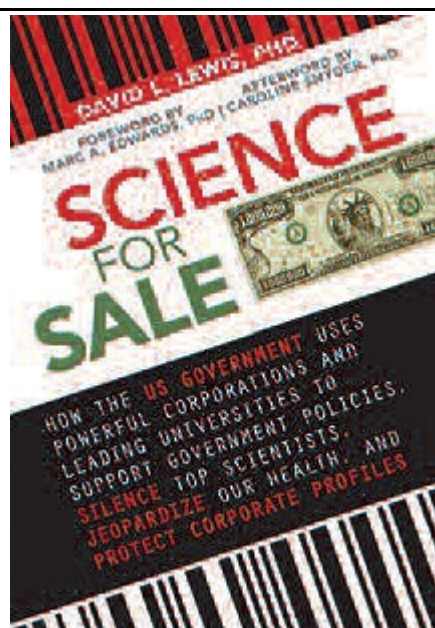
What people ate in the period between Henry VIII and Charles I showed a great deal about their social stations. Paul Lloyd, PhD, who lectures at the University of Leicester, has carried out quantitative and qualitative analyses,

drawing on data from household inventories and accounts, diaries, cookery books, historical documents, court and military records, council proceedings, royal proclamations and even archaeological digs to establish that there was a strong link between food choices and social identity. Foods had their symbolisms, and even then there were issues over "luxuries" versus "necessities" as well as price.

Dr Lloyd has examined the three main social groupings of the day: the "meaner sort", the aspirational "middling" and the gentry below the nobility. Sometimes there were overlaps of foods among the three groups, but preparation methods made the social distinctions apparent. Servants could also be lucky enough to taste the morsels left over by their aristocratic masters.

Social interaction could involve gift-giving (or refusal) to cement (or break) relationships, and there were many special occasions and feast days to mark and celebrate, all of which involved different food choices.

In this period of changing values, demographics and wealth distribution, food selections were key cultural markers, but the humoral properties of different foods were important considerations for health (see the two-part article in 22/03-04). Dr Lloyd has produced a fascinating study, rich in historical context.



SCIENCE FOR SALE
by David L. Lewis, PhD
Skyhorse Publishing, New York, 2014
ISBN 978-1-62636-071-6 (334pp hc)
Avail: www.skyhorsepublishing.com

A research microbiologist with a stellar record, David Lewis, PhD, had his 32-year career with the R&D office of the US Environmental Protection Agency halted in the late 1990s. It was over his and his coauthors' documentation of adverse health effects resulting from the application of treated sewage sludge to farms, forests, playgrounds and other public and private lands. Despite treatment, these "biosolids" contain all manner of toxins including heavy metals, pathogenic bacteria and viruses, prions, organic chemical pollutants, pesticides, pharmaceutical drug residues, steroids and hormones—and they're still being spread today.

Dr Lewis explains the lengths that the US government goes to in order to protect its injurious policies—its methods including deception, fraud, data manipulation, peer-review corruption, false accusations, misleading information and media lies. Having written papers and filed lawsuits on behalf of victims, he's been at the receiving end himself.

In his role with the Research Misconduct Project at the National Whistleblowers Center, Dr Lewis continues to uncover the institutional corruption that threatens scientific integrity. One of his interests is the fate of Dr Andrew Wakefield over the alleged link between the MMR vaccine and autism. His well-documented book helps promote the need for *real* science in protecting health and the environment.

THE GEOMETRY OF THE END OF TIME

by Robert Lawlor
Lightning Source Australia, 2015
ISBN 978-0-646-93657-4 (629pp+ pb)
Available: Amazon.com; B&N

The article by Robert Lawlor in this issue should encourage readers to delve into his book (a new version, now available as a large-format paperback). A dedicated esotericist, Lawlor is the author of the classic *Sacred Geometry: Philosophy and Practice*. Here he expands his scope with an investigation of India's ancient Yuga system of knowledge which has much to say about the cyclic, spiralling nature of time, human origins and evolution (enter the Anunnaki), and possible scenarios in the "End of Time" future. Lawlor draws parallels between the Yuga system and the Pythagorean theory of harmonics and number which has informed the western esoteric sciences for over two millennia, and suggests that scientific findings support the notion that harmonic laws govern the microcosm and the macrocosm.

Indeed, there are mathematically calculated disharmonic deviations in our planetary system that serve as an instrument in the crime, corruption and confusion of our age, in line with the Kali Yuga's discordant aspects and the forces which tap into them.

Lawlor presents examples from history of attempts to plunge human destiny into darkness, and yet there's a way through this. There are wonders to appreciate, such as in beholding the Yuga as a measure of the spinning Earth, its dimensions known to the first megalith builders. Lawlor sees a portent in 2016, a one-third marking point in the current Yuga. Whatever happens, the great cycle of birth, death and rebirth will continue. A challenging work.

Film

Compiled by Duncan Roads



EINSTEIN WRONG:
THE MIRACLE YEAR
by David de Hilster
Bootstrap Productions © 2014 (90mins)
Available: <http://einsteinwrong.com>

David de Hilster's film *Einstein Wrong - The Miracle Year* explores an important nascent social movement that is currently ignored by the establishment mainstream media [see Science News, 22/03]. It documents the aspirations of ordinary people to understand more completely and appreciate the world they live in, but who cannot because of a systematic conspiracy to obscure the truth and censor differences of opinion in scientific research.

This documentary asks a very deeply profound philosophical question: should we accept the truth handed to us by experts who have titles, money and government power to back up what they tell us is scientific truth, or should we trust in our own ideas about what the world is actually like, based upon how we as human individuals living in the world actually experience it?

The film answers this question as a humanist would: we must trust that the world exists as we experience it, and we must not trust the opinions and propaganda of experts who would tell us that the world is an absurdity through a metaphysical myth disguised as science.

The film combines a sophisticated philosophy about what science is for and why society should fund science. It also asks the question: are the experts serving us well in the teaching of scientific truth, or is the truth taught to us in schools and universities merely a myth created by experts who don't have any really valid answers and so censor all controversy about truth in science in the interest of maintaining their social positions and funding sources?

Einstein Wrong challenges us to come to grips with whether or not we believe in science as a method of proof regarding what is true in terms of the real world. Science is supposed to deal with what is actually true and real about the world, rather than with what we'd like to believe is true based upon our metaphysical prejudices and

myth-making tendencies. If we reject that idea of real-world truth and replace it with myth-making, we are lost in a sea of confusion.

We have to make choices about truth that we alone are responsible for, and that is daunting. We would like to avoid that responsibility and just let the experts decide. But that is the crisis of our times. We should not let the experts decide, because they are not honest and do not have our best interests in mind since they have their own interests and the interests of those who pay them uppermost. That is the difficulty in the blind acceptance of any kind of establishment scientific knowledge. (Source: Edited from a review by Harry H. Ricker III at <http://einsteinwrong.com>.)

MUSIC

Reviewed by Richard Giles



THE PARIS SESSION

by The Toure-Raichel Collective
Cumbancha Music, 2014 (47mins)

Distributors:

Australia—The Planet Co., www.theplanetcompany.com

USA — www.cumbancha.com

www.toureiraichel.com

The Toure-Raichel Collective (see NEXUS 19/04) is led by Israeli keyboardist and songwriter Idan Raichel with Malian guitarist Vieux Farka Toure, both of whom are stars at home and abroad. This album is about the distinctive power of music to bridge racial, political and religious differences and connects the artists as friends on common ground. There is that feeling from their first album, *The Tel Aviv Session*, of a uniting of musical cultures. Uplifting.

GANDADIKO

by Samba Toure
Glitterbeat Records, 2015 (45mins)

Distributors:

Australia—The Planet Company

Germany—Glitterbeat Records, www.glitterbeat.com

Samba Toure is a Malian musician who brilliantly combines Malian music, blues and western rock. On the track "Wo Yende Alakar", Toure amazes with his menacingly distorted wah-wah lead guitar. Adama Sidibe, one of Toure's collaborators, plays the *njarka*, a traditional stringed violin-like instrument with a clear, sharp sound. *Gandadiko* has infectious riffs that stick in the brain. Toure and company's resonant vocals and harmonies work together with force and feeling, and there are many moments reflecting historical roots.

FOURTH WORLD Vol. 1:
POSSIBLE MUSICS
by Jon Hassell / Brian Eno
Glitterbeat Records, 2014 (46mins)
Distributors:
Australia—The Planet Co.
www.theplanetcompany.com
Germany— www.glitterbeat.com

This 1980 classic by Jon Hassell and Brian Eno has been re-released by Glitterbeat. In its time, it was a breakthrough in experimental world music and ambient electronica. Hassell studied classical music and applied Indian vocal techniques to his trumpet playing. Hassell and Eno use digital delay, echo and electronic effects in their musical treatments. Handclaps serve as percussion on one track, "Griot", recorded in an art gallery, and the trumpet soars with a high drone, providing a sense of strangeness. Fascinating.

FOCUSED ATTENTION
by Jeff Strong
SoundsTrue Music, 2015 (61mins)
Distributors:
Australia—Phoenix Dist.
www.phoenixdistribution.com.au
USA — www.soundstrue.com
www.stronginstitute.com

This CD, *Focused Attention*, is by Jeff Strong, musician and creator of Rhythmic Entrainment Intervention brain stimulation therapy. Part of his *Brain Shift Collection* series, the album helps to sharpen your mental focus and sustain alertness while completing a variety of tasks. Fast rhythms at varying tempos move your brain into the mid-alpha state of consciousness to raise your level of cognitive awareness. The CD features a single *gonga* hand drum mixed with an ambient instrumental soundtrack. Strong's methods have proved effective in the treatment of ADHD, autism, depression, anxiety, stress, insomnia and other health issues.

Cartoons

by Phil Somerville



"Could you hurry it up, please?"



"No, I don't know how either, but please ... don't blame it on the GPS."

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STATEMENT OF PURPOSE

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